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THE AMERICAN SUPPLY ASSOCIATION

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For the ninth consecutive year, the ASA **Annual Operating Performance Report** was compiled, tabulated and analyzed by Industry Insights, Inc. in cooperation with the American Supply Association and key industry members.

Industry Insights, headquartered in Columbus, Ohio, is a professional research and consulting firm providing management and marketing services to trade and professional associations and their members. The company specializes in industry operating surveys, compensation studies, educational programs and customized research services.

(Additional copies of the report are available from the ASA office)
Just call (312) 464-0090

About This Report

This 1991 American Supply Association **Operating Performance Report of the PHCP Wholesale/Distribution and PVF Distributing Industries** (based on 1990 financial data) represents the most complete, accurate and up-to-date data base of full-service plumbing, heating, cooling and piping (PHCP) wholesaler financial and operating data published anywhere. The information contained in this report is designed to provide easy-to-understand guidelines for identifying business performance improvement opportunities.

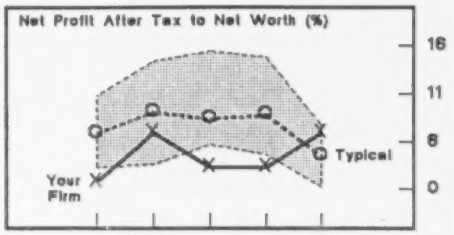
For the ninth consecutive year, the **Operating Performance Report** (OPR) was prepared by Industry Insights, Inc. of Columbus, Ohio, while working closely with the American Supply Association staff. Confidential survey forms (refer to the Appendix for a sample) were sent to ASA members in early March and 292 completed and usable responses were received. This represents a 7% increase over the number of responses received in 1990 and is one of the largest data bases of respondents among any wholesale/distribution industry.

As in the past, this year's report includes comparative financial ratios and statistics by type of firm, sales volume size and high profit firms. In addition, building upon the historical information that has resulted from past ASA operating performance surveys, this year's study contains various ten year industry trend data, along with appropriate analysis. Such information is important for identifying shifts occurring within the industry which may be representative of future conditions.

Perhaps the most valuable feature of the ASA **Operating Performance Report** is that all firms participating in the survey automatically receive a confidential Company Performance Report. This report presents a company's own ratios and data computed in a manner consistent with those appearing in the industry report and displayed alongside the appropriate industry comparatives. (A representative page from a sample Company Performance Report is illustrated on the following page.)

As shown on any given line of the Company Performance Report, a firm's own data is included along with industry averages for firms of a comparative sales volume, type of business, etc. Thus, the individual owner/manager is provided invaluable information without having to spend time and effort making the calculations manually. In addition, for any firm which participated in more than one consecutive ASA OPR study in recent years, the Company Performance Report includes multiple year **trend data** in graphical form. Also, once again, these highly confidential reports contain a computer-generated qualitative assessment of a company's situation, including some possible alternative courses of action.

Sample Company Performance Report



COMPANY NO. 500

	YOUR FIRM	ALL PLUMBING & H-V-A-C FIRMS TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES			
Net Profit After Tax to Net Worth	6.5 %	5.8	0.2 - 7.4
Total Assets to Net Worth	2.2 TIMES	1.7	1.3 - 2.4
Net Profit After Tax to Total Assets	2.9 %	2.8	0.2 - 3.7
Net Sales to Total Assets	2.5 TIMES	2.5	2.1 - 2.8
Net Profit After Tax to Net Sales	1.2 %	0.7	0.1 - 1.7
Net Profit Before Tax to Net Worth	10.4 %	5.4	0.6 - 11.9
Net Profit Before Tax to Total Assets	4.8 %	2.7	0.4 - 6.7
EBIT to Total Assets	5.4 %	5.8	2.3 - 9.4
SALES ANALYSIS			
Net Sales($000)	85,885	8,188	4,763 - 18,189
Percent Sales Change from Prior Year	-2.0 %	-1.6	-7.1 - 5.9
Sales Mix:			
Direct Sales	11.0 %	11.6	4.5 - 15.0
Warehouse Sales - Counter and Delivery	89.7 %	88.4	85.0 - 95.5
TOTAL SALES	100.0 %	100.0	100.0 - 100.0
PRODUCT SALES MIX			
Plumbing Supplies & Equipment	30.0 %	42.8	38.8 - 50.0
Heating & Cooling Supplies & Equipment	0.0 %	22.6	13.0 - 38.3
P-V-F (Pipes-Valves-Fittings)	30.0 %	24.2	14.8 - 33.0
Other Supplies & Equipment	30.0 %	6.5	0.0 - 10.0
Other	10.0 %	4.0	0.0 - 5.3
TOTAL SALES	100.0 %	100.0	100.0 - 100.0
GROSS MARGIN			
Gross Margin on Net Sales	25.4 %	26.2	22.4 - 28.4
Gross Margin on Direct Shipments	14.9 %	12.6	10.0 - 17.7
Gross Margin on Warehouse Sales	26.6 %	27.1	24.3 - 29.2
ASSET AND FINANCIAL MANAGEMENT			
Current Asset Turn (Sales/Current Assets)	2.6 TIMES	2.9	2.4 - 3.3
Total Debt to Net Worth	120.9 %	66.2	33.7 - 137.3
Current Debt to Net Worth	48.5 %	44.8	38.8 - 112.7

SUMMARY PERFORMANCE EVALUATION

Your Firm's Performance Compared to "All Similar Firms"

NET PROFIT AFTER TAX TO NET WORTH.....(WEAK)

Return on Net Worth (RONW) is one overall measure of company profitability, expressing the percentage return earned on the owner's investment in the business.

Your firm's RONW was below the lower quartile performance level, suggesting that further investigation is warranted to determine where profit leaks are occurring. While you may conclude that no significant problems exist, suggested areas of review are asset turnover, profit margin, and financial leverage (the three basic components of RONW).

Wouldn't it be great to track your firm's performance month-to-month and compare your results to industry averages?

... Now you can with ProfiTrak

ProfiTrak, an easy-to-use software program, makes it possible for you to monitor your company's progress on a timely basis. Designed for IBM© PC/XT/AT or compatible computers, **ProfiTrak** will help you determine:

- Where your firm is wasting money.
- If you are as profitable as you should and can be.
- If your employees are productive.
- If your firm is financially strong.
- If your receivables are well-managed.

ProfiTrak is Unique . . .

ProfiTrak is specifically designed for your firm and your industry. Based on your participation in the association's recent financial operating performance survey, your confidential **ProfiTrak** diskette will be sent to you already containing your firm's results and appropriate industry comparatives. Even if you did not participate in the association survey, you can easily enter your numbers into **ProfiTrak** and the program will calculate your ratios and make comparisons to industry norms. Now you won't be wasting valuable time trying to customize the software to your industry. Also, since your **ProfiTrak** diskette is self-contained, there is no need to adapt to a complicated spread-sheet program.

Heard reports of other software that have fallen short? . . .

It's unfortunate that many companies have invested in costly software packages that are too generic to do any good. But because **ProfiTrak** is *uniquely* and *confidentially* prepared for *your* firm, you can be sure it's a tool that will provide a better understanding of your operations — and ultimately improve your bottom line.

ProfiTrak is as easy as turning on your computer.

Because **ProfiTrak** is so simple to use (completely menu-driven with on-screen help) — you can begin implementing the program the day you receive it. . . . But don't be fooled by **ProfiTrak's** simplicity. It is a powerful management tool with many built-in features (see inside . . .) You will come to think of **ProfiTrak** truly as your Desktop Financial Partner.

ProfiTrak is a Trademark of Industry Insights, Inc.

How To Order ProfiTrak

Simply cut out and mail the order form along with your check or money order. Once ordered, your confidential **ProfiTrak** diskette, along with a "get acquainted" manual and registration card (for annual update/program enhancement information) will be sent to you within 10 working days.

Computer Requirements:
IBM™ PC/XT/AT or compatible, with at least 256k memory, DOS 2.0 and up; monochrome or color monitor.

Please return this order form and your check or money order to American Supply Association, 222 Merchandise Mart Plaza, Suite 1360, Chicago, IL 60654

☐ I need ProfiTrak now. Enclosed is my check or money order, computed as follows:

$_____ Association Member Price ($195)

$_____ Non-Member Price ($295)

$ 3.50 Shipping & Handling

$_____ Illinois residents add 8.0% Sales Tax

$_____ TOTAL

☐ I am very interested, but I have some questions. Please call me, or . . . for faster service, call Industry Insights at (614) 442-6626.

☐ Yes, I participated in the OPR Survey. My confidential company code # is: #_____

My Product Category is:
____Plumbing Supplies & Equipment
____PVF
____Plumbing & PVF
____HVAC or other

Please check one:
____3-1/2" diskette
____5-1/4" diskette

Name/Title:_____

Company Name:_____

Shipping Address:_____

City/State/Zip:_____

Business Phone:_____

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How To Use This Report

The 1991 ASA **Operating Performance Report of the PHCP Wholesaler/Distribution and PVF Distributing Industries** has been designed to help wholesalers evaluate their own performance relative to that of similar companies in order to identify improvement opportunities. The statistics in this report represent broad performance "*yardsticks*" against which a company's performance can be measured.

Using this information, PHCP and PVF wholesalers can compare their own firm's financial and operating performance with: the industry as a whole; firms having the same general product emphasis; firms of a comparable sales volume; and the highest profit firms. Spotting significant differences between your own firm's performance and the industry composites can be the first step toward improving performance. Keep in mind, however, that:

1. *A deviation between your firm's figures (for any performance measure) and numbers in the report is not necessarily good or bad. It merely indicates that additional analysis may be required.* As a rule, the larger the difference, the greater the need for further investigation.

2. In situations where large deviations do exist, it may be helpful to go back and calculate the same performance measure over the past several years to identify any trends that may exist.

3. The information in this report should be used as a tool for informed decision making rather than absolute standards. Since firms differ as to their product emphasis, location, size, and other factors, any two firms can be successful yet have very different experiences with regard to certain performance measures.

UNDERSTANDING THE DATA

In order to use the information in this report to maximum advantage, it is important to understand *how the data is arranged* and *how to interpret them.*

How the Tables are Organized

The tables in this report are organized to include a number of important financial ratios for each relevant "grouping" of similar firms. In particular, the major "groupings" used include:

- All Reporting Firms--refers to the results of all firms responding to the survey.
- Product Emphasis Group:
  - Plumbing Supply Firms--those firms that derive over 50% of sales from plumbing products.
  - PVF Firms--those firms that derive over 50% of sales from PVF products.
  - Plumbing Supply & PVF Firms--those firms that derive more than 50% of sales from plumbing and PVF products combined but less than 50% from either category alone.

- HVAC & Other Firms--those firms that cannot be classified in any of the above three groups; or those companies which derive less than 50% of sales from combined plumbing supplies and equipment, and PVF.

- Product Emphasis Group by Sales Volume
- By Product Emphasis Group by High Profit Firms (refers to those firms whose before tax return on assets are in the upper half of performance)
- Large Volume Firms (those with sales volume of $50 million & over)

The table of contents shows specifically where each table can be found.

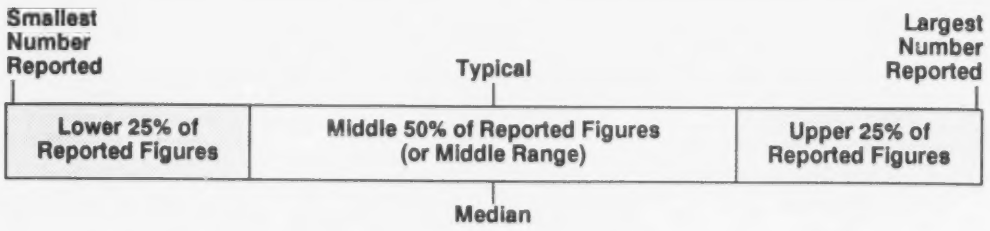
Interpreting the Numbers

Most of the performance indicators included in this study are reported on the basis of medians rather than arithmetical averages or means. Unlike the mean, the median is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances. The "median" figure represents the mid-point of the figures for a particular measure, with one-half of the firms reporting figures above it and one-half below. Each median was computed independently based on the companies which reported for that item. As a result, **mathematical relationships do not always exist** when different ratios are used together in the calculation. For example, the median net sales minus the median cost of goods sold may not necessarily equal the median gross margin percent.

Also included for most of the performance indicators is the "Middle Range." This represents the experience of the middle 50 percent of all firms in the data grouping when items are arranged numerically from lowest to highest. In other words, the upper and lower limits on the "Middle Range" are simply the upper and lower quartiles respectively for that ratio.

Figures reported by responding members were not used unless they were in accordance with the survey instructions and definitions. In cases where the number of companies reporting was considered inadequate for the computation of a meaningful figure, blank spaces appear in the tables, or an "insufficient data" (ISD) notation is included.

Further insights into how to use this report are included in the Appendix in the section entitled: "Ratio Definitions and Sample Calculations." An important point to keep in mind when using this report is that *even relatively simple analysis of your company's own financials using the industry data for comparison can yield important insights into your business. You do not have to be a financial expert to benefit from this information.*



FINE TUNING YOUR FIGURES

Most companies will find that their own financial performance ratios can be directly compared to the figures that appear in this report. However, there are some situations for which it might be helpful for you to adjust your own financial data in order to make more valid comparisons to industry statistics. If you find there is a large discrepancy between you and the typical experience on one or more performance measures, check the list below to see if your figures need a little *fine tuning*.

- **Owner Compensation**
  One of the factors that commonly distorts payroll expense is owner compensation. If a company is paying its owners a lot more or less than the norm for the industry, comparing your payroll to the typical firm could distort reality. If owner compensation is not broken out separately in the report, you may wish to adjust your figures. A good rule of thumb is to include owner salaries/commissions/ bonuses at a level that the company would have to pay if it hired an outsider to do the same job(s).

  Benefits may need to be adjusted as well if your company provides any unusual fringes for owners. Good target--large amounts of life insurance not payable to the company. This is frequently used to fund buy-sell agreements among the owners.

  Sometimes companies will pay family members more highly than they would pay outsiders to perform the same functions. If this applies, consider making an adjustment here.

- **Rent**
  Some companies rent facilities and equipment from company owners or other firms they own. Make sure the amount of rent paid is reasonably close to true market value.

- **Company Cars**
  These are not the perk they once were due to limitations on depreciation deductions. However, if the company president has a Rolls Royce on the books, you may want to exclude it from your analysis.

- **Misclassified Expenses**
  Some expenses do not belong where they appear on the books. For example, if a company provides legal assistance or tax preparation to employees as a *perk*, it might show up under legal or accounting expense. It really belongs with the other fringe benefits. The same is true of travel and other prizes associated with sales contests and the like.

- **Unusual Gains and Losses**
  These can occur for many reasons and are basically things that cause unusual profitability not based on the normal course of doing business. The sale of assets is a common one. Expense related to closing facilities is another. Most accountants segregate these expenses so that they can be isolated. If yours does not, make an adjustment for it.

- **Debt versus Equity**
  In a small business, debt and equity tend to run together a bit. Actually, it can be more than a bit. Many owners have loaned money to their businesses in lieu of purchasing stock. If this is excessive, your financial leverage and return on equity will be artificially high. Of course, the opposite could be true as well.

- **LIFO**
  Inventory amounts appearing in this report are valued on a non-LIFO basis. If you are using the LIFO method, make sure you are stating your inventories on a non-LIFO basis for comparison purposes.

You can't fine tune away your problems!

Applying some of the ideas listed here can be quite helpful in making a comparison of your results to the industry averages more enlightening. However, too much tinkering can make you look better than you really are. There is no cure for lack of bottom line profitability except finding the problems and fixing them.

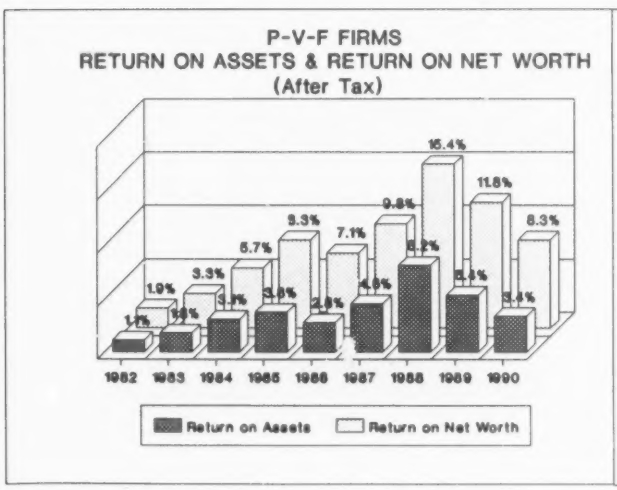
Executive Summary of Survey Results

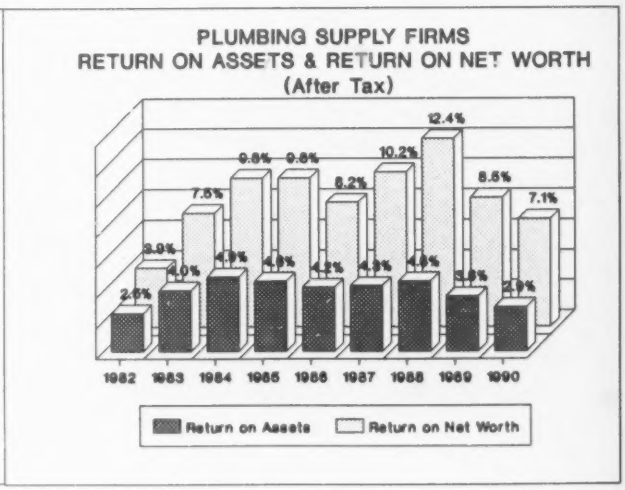
As in past years, the 1991 *ASA Operating Performance Report* is organized as a set of easily referenced industry performance tables These are divided into four primary sections corresponding to the product emphasis groups in the industry, which are defined as:

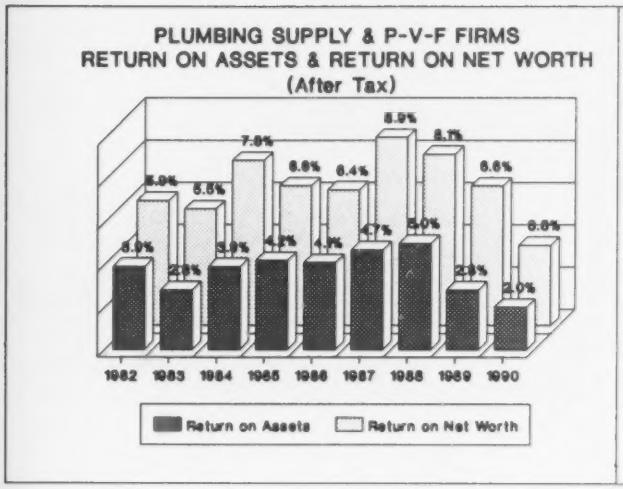
- Plumbing Supply Firms
- PVF Firms
- Plumbing Supply & PVF Firms
- HVAC and Other Firms

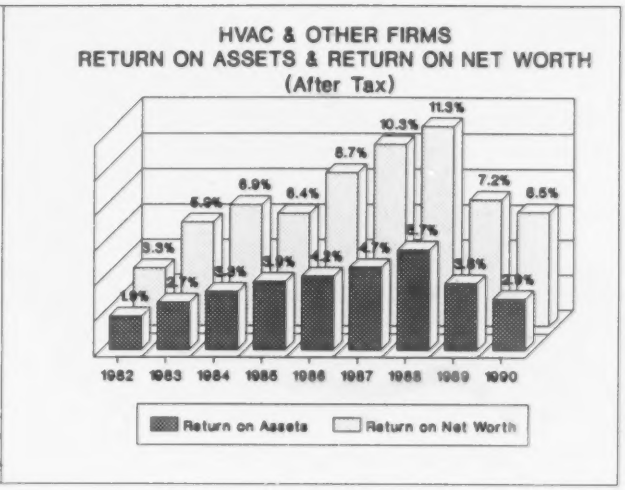
In using this study to evaluate your own company's performance, you should refer to the section which most closely corresponds with your firm's operation. This detailed information should be kept handy and referenced from time to time as a tool for better controlling and managing your business. Even more importantly, the 1990 performance results can be compared to prior years' results in order to identify any trends that have taken place. This is useful for understanding not only where the industry has been, but also for anticipating the future direction of the PHCP/PVF wholesale business. Following are highlights of the 1990 results as well as insights regarding patterns of change during the 1981-1990 period.

The series of tables and graphs on the next several pages have been abstracted from the comprehensive set of statistics. These data represent good overall gauges of PHCP wholesaler performance in key areas of profitability, financial management, accounts receivable, expenses and profits, and sales performance.






PLUMBING SUPPLY & P-V-F FIRMS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989 1990
Return on Assets
Return on Net Worth


HVAC & OTHER FIRMS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989 1990
Return on Assets
Return on Net Worth

Profitability

Overall profitability declined in 1990 for the second consecutive year. Return on net worth (after tax) for the typical firm was 5.7%, a decrease from the 8.5% experienced in 1989 and 12.5% in 1988. Return on assets (after tax) also decreased in 1990, as the typical firm earned 2.8% on assets compared with 3.7% in 1989 and 5.6% in 1988. **PVF** firms reported the highest returns on net worth and assets of 8.3% and 3.4 % respectively, while the group of **Plumbing Supply & PVF** firms reported the lowest returns, 3.8% and 2.0%.

This pattern of lower profitability is generally reflective of the recessionary conditions that existed in the overall U.S. economy during much of 1990. As shown in the accompanying graphs, the past two years have been a reversal of a general uptrend in industry profitability that has occurred since 1982.

EXPENSES, PROFITS AND SALES GROWTH

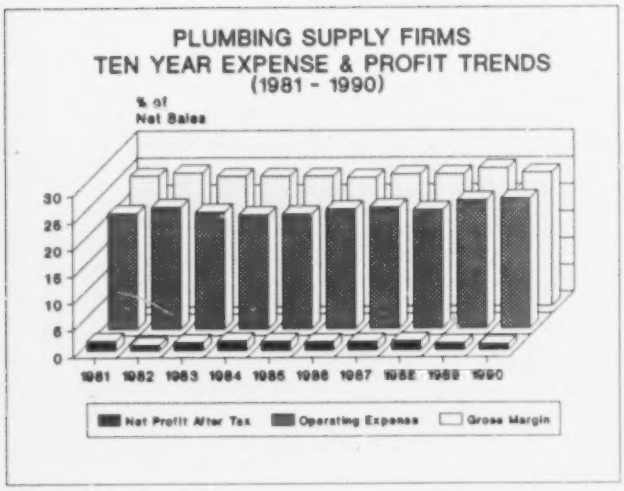
The primary contributing factor to the lower overall profitability performance of industry firms during the past two years has been a steady decline in bottom line profit margins (i.e., profits as a percent of sales). This has occurred in each of the four industry segments.

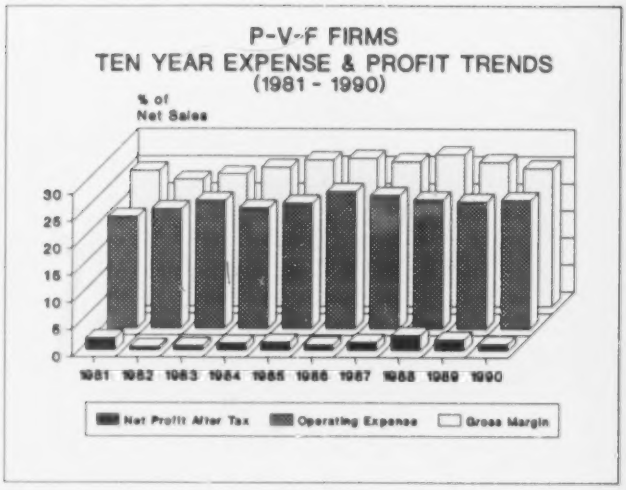
- **Plumbing Supply Firms** have gone from a 1.7% profits on sales in 1988 to 1.3% in 1989 to 1.1% in 1990.
- **PVF Firms** have similarly dropped from 2.8% in 1988 to 2.0% in 1989 to 1.2% in 1990.
- **Plumbing Supply & PVF Firms** went from a profit margin of 1.7% in 1988 to 1.2% in 1989 to 0.7% in 1990.
- **HVAC & Other Firms** experienced a profit margin drop from 2.0% in 1988 to 1.3% in 1989 and then remained at 1.3% in 1990.

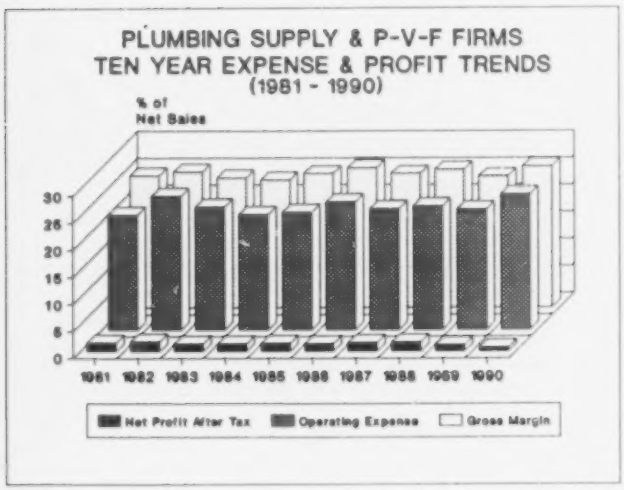
The adverse profit pressures that have been experienced industry-wide have, in part, been reflective of a significant slowdown in overall sales growth during the past two years, which has thus resulted in increased competition and a reduced ability to leverage fixed expenses. In other words, as sales growth has slowed, gross margins have become vulnerable and expenses relative to sales have tended to increase--thus lower profit margins have occurred.

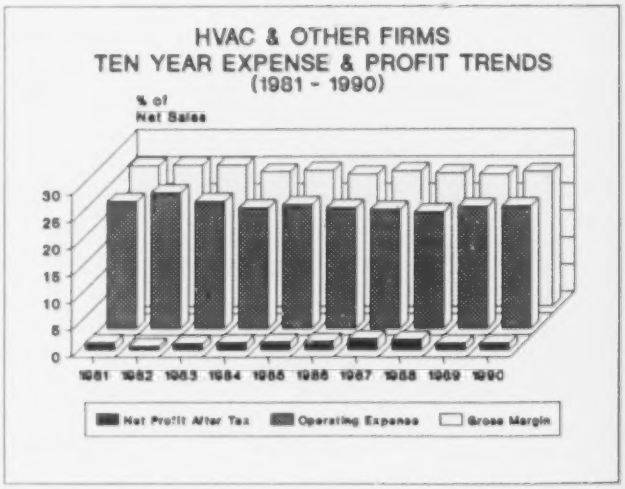
The accompanying charts and graphs highlight the expenses and profit trends that have occurred in the industry over the years as well as the sales growth patterns experienced by each industry segment.

For your reference, additional insights into the make-up of sales for each industry segment are shown in the accompanying **sales mix** and **product mix** graphs. These indicate the mix of direct or drop shipment sales and warehouse sales, as well as the mix of product sales for each type of wholesaler.



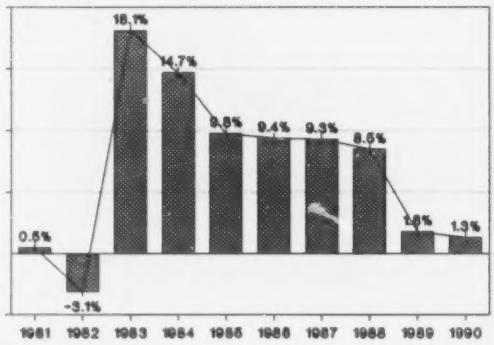




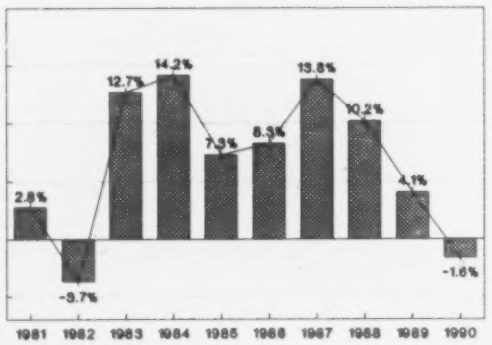


	Plumbing Supply Firms			PVF Firms			Plumbing Supply & PVF Firms			HVAC & Other		
	1990	1989	1988	1990	1989	1988	1990	1989	1988	1990	1989	1988
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross Margin	24.9	25.8	24.7	25.6	26.7	28.1	26.2	24.3	25.6	24.9	24.5	24.7
Operating Expenses	24.2	23.9	22.1	23.7	23.4	23.8	25.0	22.2	22.8	22.6	22.5	21.5
Profit After Tax	1.1	1.3	1.7	1.2	2.0	2.8	0.7	1.2	1.7	1.3	1.3	2.0

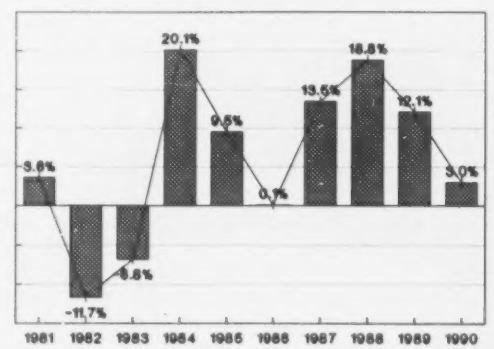
PLUMBING SUPPLY FIRMS
SALES GROWTH



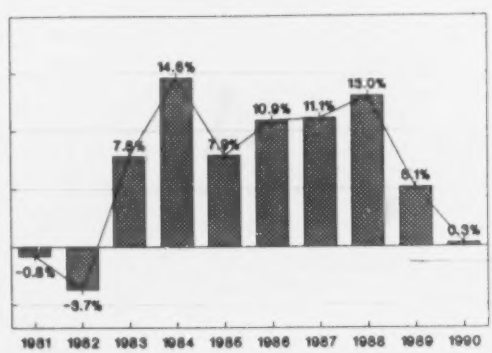
PLUMBING SUPPY & P-V-F FIRMS
SALES GROWTH



P-V-F FIRMS
SALES GROWTH

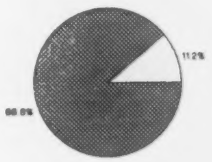


HVAC & OTHER FIRMS
SALES GROWTH



Sales Mix

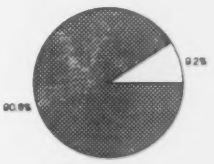
PLUMBING SUPPLY FIRMS

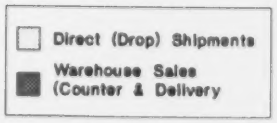


P-V-F FIRMS

PLUMBING SUPPLY & P-V-F- FIRMS

HVAC & OTHER FIRMS



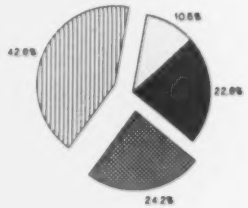


Product Mix

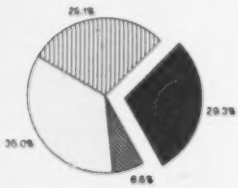
PLUMBING SUPPLY FIRMS

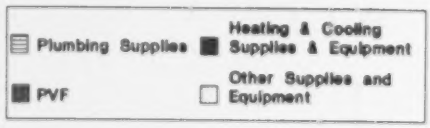
P-V-F FIRMS

PLUMBING SUPPLY & P-V-F FIRMS



HVAC & OTHER FIRMS





PROFIT MODEL 1990 VS. 1989

Each year's ASA *Operating Performance Report* contains a special analysis showing industry profitability based on "return on net worth" (before tax). This single measure essentially summarizes all the key components of profitability: margin management, asset management, and financial policy (debt) management.

The exhibit on the following page shows the profit model for all wholesalers as well as the four types of wholesalers. This model is an extremely useful framework in which a company can quickly and easily see which areas of the business need improving. For those companies who received an ASA **Company Performance Report**, your company's figures have been calculated and displayed alongside the industry comparatives. This model's usefulness is best suited to an individual company wishing to compare their operations with a benchmark or guideline in hope of identifying improvement opportunities.

The easiest way to understand the model is by starting in the middle and working backwards. Return on assets, as the model indicates, is the product of the profit margin and asset turnover. Profit margin refers to net profit before tax divided by net sales and is a good measure of margin management, since in order to earn an acceptable profit a company must earn an acceptable gross margin while keeping expenses in line. Asset turnover depicts net sales divided by total assets and is a good measure of asset productivity. This measure indicates how many dollars in sales are being generated by each dollar of assets employed in the business. When asset turnover is multiplied by profit margin, the result is return on assets. Any improvement in your profit margin or asset turnover will improve the return on assets. Return on net worth, as the model shows, is the product of the return on assets and leverage. Leverage, an indicator of the degree to which debt is used for financing, magnifies the return on assets to yield the return on net worth. Given any level of profits, the more debt a company has (or the less net worth), the higher the return on net worth will be.

Based on the profit models shown for PHCP wholesalers, it is evident that lower profit margins were the main contributor to the lower return on assets and return on net worth. This was true of all four industry segments.

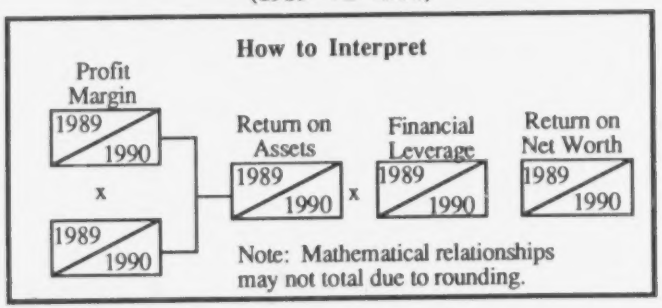
OTHER PERFORMANCE MEASURES

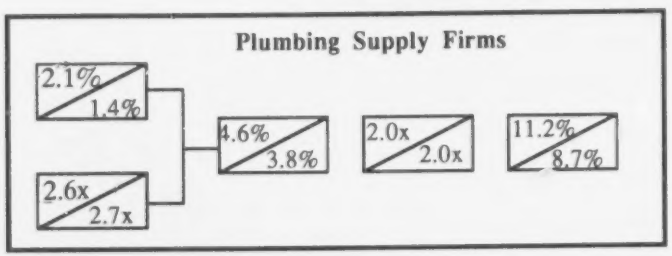
In addition to the key components of industry profitability outlined above, many other factors contribute to PHCP wholesaler success. One such ingredient involves the extent to which a company controls accounts receivables. While effective receivables management may be a routine process for many firms, if this is not done properly, several unfavorable circumstances can occur.

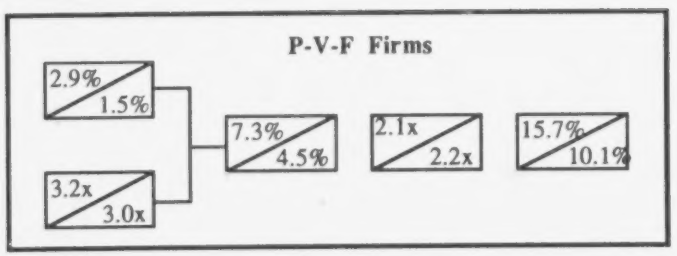
- Cash flow becomes tight due to excess dollars tied up in receivables, and paying bills on time may become difficult.
- Profitability leaks occur since receivables have corresponding costs, such as administrative costs, financing costs, and collection costs (i.e., lawyers, credit bureaus, collection agencies, etc.). In addition, if receivables problems persist, bad debt expenses may become more and more significant.

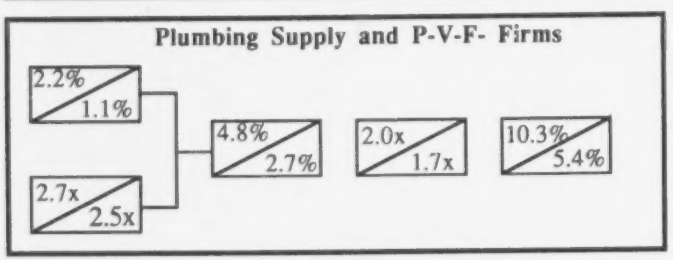
P-H-C-P WHOLESALER TWO YEAR STRATEGIC PROFIT MODEL RATIOS

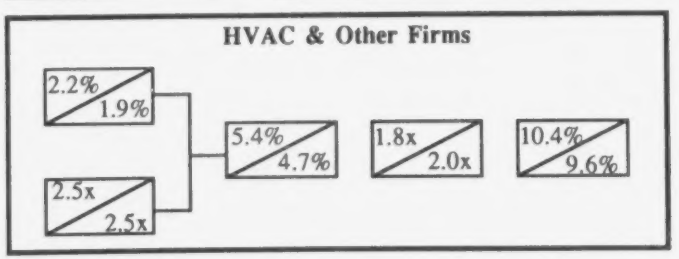
(1989 VS 1990)

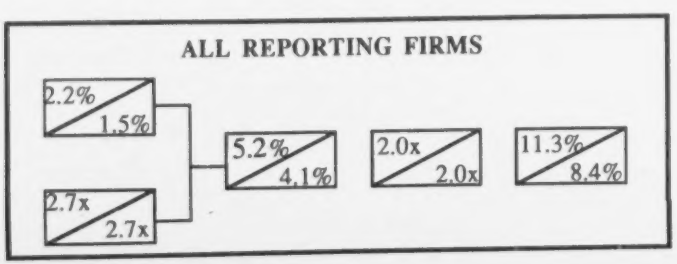












Note: All figures in the profit model are computed on a before tax basis.

- Money tied up in excess receivables can prohibit your firm from taking advantage of growth opportunities and could jeopardize your ability to compete effectively, especially in times when profits and sales growth are slim.

This report provides several indicators of receivables management. One such measure is the "average collection period" or "days outstanding in receivables" as it is often called. This measure has shown the following pattern for the four types of wholesalers over the last nine years.

Plumbing Supply firms have typically reported an average collection period of about 49 days. In 1990 the typical firm collected receivables on an average of every 45 days.

PVF firms, on average, collect receivables every 45 days. In 1990 the typical firm reported an average collection period of 48 days.

Plumbing Supply and PVF firms have typically reported an average collection period of 50 days which is what it was in 1990.

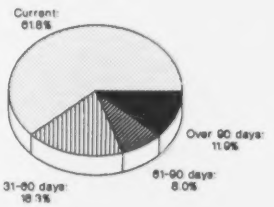
HVAC & Other firms on average collect receivables every 46 days. In 1990 the typical firm reported an average collection period of 43 days, the lowest since 1981.

In addition to the "average collection period," another useful way to manage receivables is through the accounts receivable aging table as shown to the right.

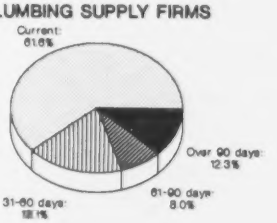
In addition to receivables management information, the tables on the following pages show a variety of other performance barometers over the past 10 years for each of the four PHCP wholesaler segments as well as the industry overall in the aggregate.

Accounts Receivable Aging--1990
Percent of Accounts Receivable Dollars

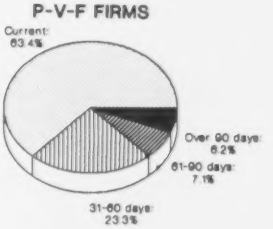
ALL FIRMS



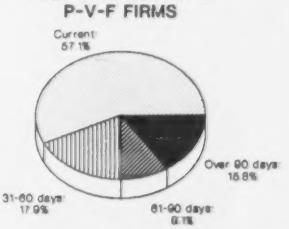
PLUMBING SUPPLY FIRMS



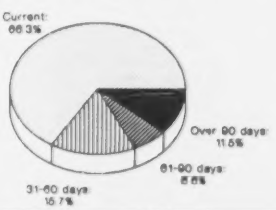
P-V-F FIRMS



PLUMBING SUPPLY & P-V-F FIRMS



HVAC & OTHER FIRMS



ALL REPORTING P-H-C-P AND P-V-F WHOLESALER/DISTRIBUTORS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON 1981-1990

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability										
After Tax Return on Net Worth	5.7%	8.5%	12.5%	9.8%	8.1%	8.8%	8.2%	6.3%	3.8%	NA
After Tax Return on Assets	2.8%	3.7%	5.6%	4.5%	4.0%	4.0%	4.1%	3.1%	2.3%	NA
Financial Management										
Total Debt to Net Worth	97.7%	95.3%	110.6%	104.6%	90.8%	88.0%	82.7%	78.4%	68.3%	74.1%
Current Assets minus Inventory to Current Debt	1.1x	1.0x	1.0x	1.0x	1.0x	1.1x	1.1x	1.1x	1.3x	1.1x
Personnel Productivity										
Net Sales per Employee (nominal $)	$226,583	$220,830	$220,921	$200,712	$193,225	$187,024	$186,131	$167,380	$152,258	$162,040
Net Sales per Employee (adjusted for inflation)	$179,327	$174,846	$182,128	$170,964	$169,794	$168,642	$172,824	$161,097	$152,258	$172,383
Payroll and Fringe Benefits to Net Sales	14.7%	14.6%	13.9%	13.0%	13.3%	13.5%	13.7%	14.1%	14.5%	14.1%
Inventory Management										
Gross Margin on Sales	25.3%	25.5%	25.3%	25.1%	24.9%	24.9%	24.5%	24.8%	25.0%	24.7%
Cost of Warehouse Goods Sold to Average Inventory	3.6x	3.9x	3.7x	3.6x	3.6x	3.4x	3.6x	3.3x	3.1x	3.4x
Total Cost of Goods Sold to Average Inventory	4.1x	4.2x	4.5x	4.2x	4.2x	4.0x	4.1x	3.8x	3.6x	3.8x
Warehouse Gross Margin Return on Inventory	123%	133%	131%	128%	122%	120%	123%	114%	109%	119%
Accounts Receivable										
Average Collection Period (days)	46	47	49	48	47	47	48	50	47	44
Percent of Invoices Over 90 Days Outstanding	10.5%	8.3%	7.9%	7.5%	7.5%	7.4%	6.6%	4.2%	5.7%	NA
Expense Management										
Total Operating Expenses as a Percent of Sales	24.0%	23.3%	22.3%	22.7%	22.9%	21.9%	21.5%	22.4%	23.2%	21.7%
Sales Performance										
Percent Sales Change from Prior Year	0.4%	3.8%	11.3%	11.0%	8.2%	8.3%	15.2%	10.5%	-4.3%	0.9%

PLUMBING SUPPLY FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1990

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability										
After Tax Return on Net Worth	7.1%	8.5%	12.4%	10.2%	8.2%	9.8%	9.8%	7.5%	3.9%	NA
After Tax Return on Assets	2.9%	3.6%	4.6%	4.3%	4.2%	4.6%	4.9%	4.0%	2.5%	NA
Financial Management										
Total Debt to Net Worth	96.3%	97.8%	136.1%	109.8%	106.9%	92.8%	90.7%	85.8%	68.9%	78.1%
Current Assets minus Inventory to Current Debt	1.0x	0.98x	0.94x	1.0x	1.1x	1.0x	1.0x	1.0x	1.3x	1.1x
Personnel Productivity										
Net Sales per Employee (nominal $)	$225,720	$212,273	$222,209	$203,256	$196,208	$195,342	$189,182	$171,166	$158,548	$162,470
Net Sales per Employee (adjusted for inflation)	$176,930	$168,070	$183,190	$173,131	$172,415	$176,142	$175,656	$164,741	$158,548	$172,840
Payroll and Fringe Benefits to Net Sales	15.0%	14.5%	13.7%	12.6%	13.1%	13.2%	13.5%	13.7%	14.1%	13.8%
Inventory Management										
Gross Margin on Sales	24.9%	25.8%	24.7%	24.7%	24.1%	24.3%	24.3%	24.3%	25.0%	24.4%
Cost of Warehouse Goods Sold to Average Inventory	3.7x	4.0x	3.7x	3.6x	3.9x	3.7x	3.8x	3.7x	3.3x	3.5x
Total Cost of Goods Sold to Average Inventory	4.2x	4.1x	4.4x	4.1x	4.1x	4.0x	4.2x	4.1x	3.7	4.2x
Warehouse Gross Margin Return on Inventory	127%	133%	126%	129%	124%	118%	126%	124%	113%	127%
Accounts Receivable										
Average Collection Period (days)	45	50	52	51	48	48	49	50	50	44
Percent of Invoices Over 90 Days Outstanding	12.0%	8.0%	8.3%	7.4%	7.2%	7.0%	6.3%	4.0%	5.6%	NA
Expense Management										
Total Operating Expenses as a Percent of Sales	24.2%	23.9%	22.1%	22.6%	22.3%	21.4%	21.3%	21.8%	22.7%	21.6%
Sales Performance										
Percent Sales Change from Prior Year	1.3%	1.8%	8.5%	9.3%	9.4%	9.8%	14.7%	18.1%	-3.1%	0.5%

P-V-F FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1990

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability										
After Tax Return on Net Worth	8.3%	11.8%	15.4%	9.8%	7.1%	8.3%	5.7%	3.3%	1.9%	NA
After Tax Return on Assets	3.4%	5.4%	8.2%	4.6%	2.8%	3.8%	3.1%	1.8%	1.1%	NA
Financial Management										
Total Debt to Net Worth	123.9%	106.6%	110.4%	104.6%	80.7%	84.1%	74.4%	83.9%	83.3%	64.2%
Current Assets minus Inventory to Current Debt	1.1x	1.1x	1.0x	1.0x	1.2x	1.0x	1.1x	1.1x	1.2x	1.0x
Personnel Productivity										
Net Sales per Employee (nominal $)	$289,322	$243,792	$251,503	$210,031	$205,236	$218,040	$197,975	$196,923	$201,377	$198,150
Net Sales per Employee (adjusted for inflation)	$222,661	$193,026	$207,340	$178,902	$180,348	$196,609	$183,821	$189,531	$201,377	$210,798
Payroll and Fringe Benefits to Net Sales	13.7%	14.5%	15.1%	14.7%	14.6%	15.9%	14.4%	14.1%	13.9%	12.9%
Inventory Management										
Gross Margin on Sales	25.6%	26.7%	28.1%	26.8%	27.4%	27.1%	25.7%	24.4%	23.4%	25.1%
Cost of Warehouse Goods Sold to Average Inventory	4.3x	4.4x	4.2x	3.5x	3.3x	3.3x	3.2x	3.1x	2.7x	3.0x
Total Cost of Goods Sold to Average Inventory	5.5x	5.0x	4.9x	4.6x	4.2x	4.1x	4.2x	3.6x	3.7x	3.4x
Warehouse Gross Margin Return on Inventory	143%	146%	159%	143%	127%	127%	121%	109%	95%	111%
Accounts Receivable										
Average Collection Period (days)	48	42	46	48	43	43	48	51	40	40
Percent of Invoices Over 90 Days Outstanding	9.6%	9.4%	7.3%	8.3%	7.4%	9.5%	6.9%	4.2%	5.8%	NA
Expense Management										
Total Operating Expenses as a Percent of Sales	23.7%	23.4%	23.8%	24.6%	25.3%	23.1%	22.2%	23.6%	22.0%	20.6%
Sales Performance										
Percent Sales Change from Prior Year	3.0%	12.1%	18.8%	13.5%	0.1%	9.5%	20.1%	-6.8%	-11.7%	3.6%

PLUMBING SUPPLY & P-V-F FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1990

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability										
After Tax Return on Net Worth	3.8%	6.6%	8.1%	8.9%	6.4%	6.6%	7.8%	5.5%	5.9%	NA
After Tax Return on Assets	2.0%	2.8%	5.0%	4.7%	4.1%	4.2%	3.9%	2.8%	3.9%	NA
Financial Management										
Total Debt to Net Worth	66.2%	108.0%	81.4%	75.7%	73.4%	79.9%	61.7%	56.7%	42.5%	52.3%
Current Assets minus Inventory to Current Debt	1.3x	1.1x	1.0x	1.1x	1.1x	1.2x	1.3x	1.4x	1.5x	1.4x
Personnel Productivity										
Net Sales per Employee (nominal $)	$220,561	$223,668	$202,519	$202,179	$189,599	$191,710	$191,422	$167,513	$152,807	$157,900
Net Sales per Employee (adjusted for inflation)	$171,977	$177,093	$166,957	$172,214	$166,607	$172,867	$177,736	$161,225	$152,807	$167,979
Payroll and Fringe Benefits to Net Sales	16.3%	15.2%	15.2%	14.4%	14.9%	14.2%	13.7%	14.3%	15.3%	14.2%
Inventory Management										
Gross Margin on Sales	26.2%	24.3%	25.6%	24.8%	25.9%	24.8%	23.7%	24.1%	25.2%	24.5%
Cost of Warehouse Goods Sold to Average Inventory	3.6x	3.9x	4.1x	3.9x	3.7x	3.7x	3.4x	3.4x	2.8x	3.1x
Total Cost of Goods Sold to Average Inventory	3.8x	4.7x	4.6x	4.2x	4.4x	4.5x	4.1x	4.0x	3.6x	3.9x
Warehouse Gross Margin Return on Inventory	134%	140%	137%	125%	130%	127%	111%	108%	106%	114%
Accounts Receivable										
Average Collection Period (days)	50	54	50	48	54	51	48	49	46	47
Percent of Invoices Over 90 Days Outstanding	11.6%	10.0%	9.6%	6.9%	7.7%	8.9%	6.2%	3.8%	5.8%	NA
Expense Management										
Total Operating Expenses as a Percent of Sales	25.0%	22.2%	22.8%	22.3%	23.6%	21.7%	21.3%	22.7%	24.7%	21.2%
Sales Performance										
Percent Sales Change from Prior Year	-1.6%	4.1%	10.2%	13.8%	8.3%	7.3%	14.2%	12.7%	-3.7%	2.8%

HVAC & OTHER FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1990

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability										
After Tax Return on Net Worth	6.5%	7.2%	11.3%	10.3%	8.7%	6.4%	6.9%	5.9%	3.3%	NA
After Tax Return on Assets	2.9%	3.8%	5.7%	4.7%	4.2%	3.9%	3.3%	2.7%	1.9%	NA
Financial Management										
Total Debt to Net Worth	101.3%	74.7%	92.1%	106.5%	92.5%	78.9%	83.8%	87.1%	92.7%	102.1%
Current Assets minus Inventory to Current Debt	1.0x	1.0x	0.9x	0.9x	0.9x	1.0x	1.0x	1.0x	1.1x	1.0x
Personnel Productivity										
Net Sales per Employee (nominal $)	$212,333	$218,502	$217,748	$184,982	$177,161	$166,551	$164,970	$144,910	$133,715	$133,470
Net Sales per Employee (adjusted for inflation)	$167,252	$173,002	$179,512	$157,566	$155,678	$150,181	$153,175	$139,471	$133,715	$141,989
Payroll and Fringe Benefits to Net Sales	13.7%	14.1%	13.0%	12.5%	12.6%	12.7%	13.9%	14.3%	15.1%	15.6%
Inventory Management										
Gross Margin on Sales	24.9%	24.5%	24.7%	25.1%	24.5%	25.2%	24.9%	26.2%	26.1%	26.1%
Cost of Warehouse Goods Sold to Average Inventory	3.4x	3.4x	3.6x	3.4x	3.3x	3.1x	3.3x	2.8x	3.3x	3.1x
Total Cost of Goods Sold to Average Inventory	3.8x	4.0x	4.3x	3.8x	3.7x	3.4x	3.9x	3.4x	3.4x	3.5x
Warehouse Gross Margin Return on Inventory	115%	118%	120%	110%	113%	109%	118%	102%	111%	118%
Accounts Receivable										
Average Collection Period (days)	43	44	44	45	46	46	46	49	50	43
Percent of Invoices Over 90 Days Outstanding	6.7%	6.8%	6.2%	7.2%	8.2%	6.3%	7.5%	5.2%	5.8%	NA
Expense Management										
Total Operating Expenses as a Percent of Sales	22.6%	22.5%	21.5%	22.0%	22.3%	22.9%	22.3%	23.5%	25.1%	23.5%
Sales Performance										
Percent Sales Change from Prior Year	0.3%	5.1%	13.0%	11.1%	10.9%	7.9%	14.6%	7.8%	-3.7%	-0.8%

High Profit Firm Analysis

The primary purpose of the *Operating Performance Report* is to help PHCP wholesalers improve their performance. A useful tool for doing this is to study the performance characteristics of the high profit firms in the industry and then strive to emulate such performance.

It should be understood that not all highly profitable companies will exhibit the characteristics indicated by the accompanying "high profit" firm data. However, it is a good idea to focus attention on the characteristics of these profit leaders in order to help identify which business activities might yield the biggest profitability boost for your firm.

The following table is a summary of the key indicators of profitability, showing the results of the high profit firms as compared to the typical or median company performance.

While there are certainly many differences in what highly profitable companies do to be profitable, some generalizations can be made.

- The high profit firms in each of the four groups experienced higher sales growth than other firms.
- The most profitable firms generally experienced lower operating expenses as a percentage of sales than that of the typical firm within each industry segment.
- Average collection period on receivables was similar in 1990 for both the high profit firms and the typical firm in three of the four industry segments.
- The high profit firms generally have a lower debt obligation than the typical firm in the industry as measured by *total debt as a percent of net worth.*

1990 High Profit vs. "Typical Firm" Performance Comparison

	Plumbing Supply —Firms—		P-V-F —Firms—		Plumbing Supply & —PVF Firms—		HVAC & Other —Firms—	
	Typical	High Profit	Typical	High Profit	Typical	High Profit	Typical	High Profit
Profitability								
Net Profit (Before Tax) to Total Assets	3.8%	7.6%	4.5%	9.1%	2.7%	6.8%	4.7%	10.0%
Net Profit (Before Tax) to Net Worth	8.7%	17.6%	10.1%	17.0%	5.4%	12.1%	9.6%	21.8%
Net Profit (Before Tax) to Net Sales	1.4%	2.9%	1.5%	2.9%	1.1%	2.8%	1.9%	3.7%
Asset and Financial Management								
Net Sales to Total Assets	2.7x	2.8x	3.0x	3.1x	2.5x	2.4x	2.5	2.7x
Total Debt to Net Worth	96.3%	82.7%	123.9%	93.7%	66.2%	58.5%	101.3	59.4%
Current Assets to Current Debt	2.3x	2.5x	2.2x	2.6x	3.1x	3.6x	2.6x	3.3x
Personnel Productivity								
Net Sales/Employee (000)	$226	$232	$289	$289	$221	$223	$212	$217
Payroll & Fringe Benefits to Net Sales	15.0%	15.0%	13.7%	14.1%	16.3%	16.1%	13.7%	13.6%
Inventory Management								
Gross Margin on Net Sales	24.9%	26.2%	25.6%	22.7%	26.2%	25.7%	24.9%	26.5%
Gross Margin on Direct Shipments	11.0%	10.8%	11.2%	11.1%	12.6%	12.4%	13.0%	12.7%
Gross Margin on Warehouse Sales	26.4%	27.1%	25.9%	24.4%	27.1%	27.1%	25.4%	27.6%
Cost of Warehouse Goods Sold to Average Inventory	3.7x	3.8x	4.3x	4.6x	3.6x	3.5x	3.4x	3.4x
% Warehouse Sales from Non-Stock Items	10.0%	12.0%	30.0%	28.5%	13.0%	10.0%	10.0%	10.0%
Cost of In-Stock Warehouse Sales to Average Inventory	3.0x	2.7x	3.0x	3.6x	3.0x	3.0x	2.8x	2.6x
Total Cost of Goods Sold to Average Inventory	4.2x	4.4x	5.5x	5.9x	3.8x	3.7x	3.8x	3.9x
Warehouse Gross Margin Return on Average Inventory	127%	131%	143%	162%	134%	123%	115%	123%
Accounts Receivable								
Average Collection Period (Days)	45	45	48	48	50	46	43	43
Operating Expenses (% of Net Sales)								
Selling Expenses	6.5%	6.6%	7.5%	7.4%	7.3%	7.0%	6.6%	6.9%
Delivery Expenses	2.2%	2.2%	2.1%	1.8%	2.2%	1.9%	1.7%	1.6%
Warehouse Expenses	3.0%	2.9%	3.1%	2.5%	2.7%	3.0%	2.9%	2.5%
General & Admin. Expenses	9.3%	9.0%	9.0%	5.9%	9.8%	8.5%	9.2%	9.1%
Occupancy Expenses	2.7%	2.5%	1.9%	1.5%	2.6%	1.9%	2.0%	2.2%
Total Operating Expenses	24.2%	23.8%	23.7%	19.3%	25.0%	22.4%	22.6%	22.7%
Sales Performance								
Percent Sales Change from Prior Year	1.3%	3.5%	3.0%	9.2%	-1.6%	2.7%	0.3%	2.5%

Plumbing Supply Firms

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.1%	1.4 - 12.5%
Total Assets to Net Worth	2.0X	1.5 - 3.3X
Net Profit After Tax to Total Assets	2.9%	0.7 - 5.9%
Net Sales to Total Assets	2.7X	2.3 - 3.0X
Net Profit After Tax to Net Sales	1.1%	0.3 - 2.3%
Net Profit Before Tax to Net Worth	8.7%	1.8 - 18.0%
Net Profit Before Tax to Total Assets	3.8%	0.9 - 7.6%
EBIT to Total Assets	7.0%	3.7 - 10.4%
SALES ANALYSIS		
Net Sales($000)	$7,630	$4,726 - 15,492
Percent Sales Change from Prior Year	1.3%	-6.8 - 8.1%
Sales Mix:		
Direct Sales	11.2%	4.3 - 15.7%
Warehouse Sales - Counter and Delivery	88.8%	84.3 - 95.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	78.7%	65.0 - 95.0%
Heating & Cooling Supplies & Equipment	9.6%	0.0 - 15.0%
P-V-F (Pipes-Valves-Fittings)	6.5%	0.0 - 10.0%
Other Supplies & Equipment	2.0%	0.0 - 2.6%
Other	3.2%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.9%	21.5 - 28.0%
Gross Margin on Direct Shipments	11.0%	9.2 - 14.3%
Gross Margin on Warehouse Sales	26.4%	23.4 - 29.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.6 - 3.5X
Total Debt to Net Worth	96.3%	45.1 - 228.3%
Current Debt to Net Worth	81.8%	35.7 - 151.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.3X	1.8 - 3.6X
Current Assets Minus Inventory/Curr Debt	1.0X	0.7 - 1.6X
Net Sales to Working Capital	5.3X	4.0 - 8.2X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.2%	0.9 - 3.5%
Net Profit Before Tax plus Depreciation to Total Assets	5.7%	1.9 - 8.9%
Working Capital to Total Assets	47.3%	33.6 - 61.4%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.3 - 6.7
Average Invoice Size	$171	$116 - 232
Average Billing Line	$32.81	$19.06 - 44.96

AMERICAN SUPPLY ASSOCIATION
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PLUMBING SUPPLY FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$225,720	$186,059 - 257,623
Gross Margin Per Employee	$55,314	$46,452 - 64,206
Average Compensation Per Employee	$26,941	$23,653 - 32,070
Average Fringe Benefits Per Employee	$4,945	$4,100 - 6,422
Compensation & Fringes Per Employee	$32,053	$26,920 - 39,107
Payroll to Net Sales	12.6%	10.9 - 14.9%
Fringe Benefits to Net Sales	2.3%	1.8 - 3.0%
Payroll & Fringes to Net Sales	15.0%	12.7 - 18.2%
Payroll to Gross Margin	50.1%	46.5 - 55.2%
Fringe Benefits to Gross Margin	9.6%	8.0 - 10.9%
Payroll & Fringes to Gross Margin	59.4%	54.7 - 66.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.7X	3.0 - 4.5X
% of Whse Sales from Non-Stock Items	10.0%	5.0 - 16.1%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.4 - 3.8X
No. of Days Average Inventory Carried	99 Days	82 - 124 Days
Total Cost of Goods Sold to Ave Inventory	4.2X	3.2 - 5.2X
Whse Gross Margin Return on Ave Inventory	127%	102 - 152%
Turn & Earn Profitability Index	87%	72 - 113%
Percent of Firms on LIFO	59.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	41 - 56 Days
Gross Margin Return on Receivables	180%	151 - 218%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	61.6%	53.3 - 68.8%
31-60 Days Outstanding	18.1%	14.3 - 21.8%
61-90 Days Outstanding	8.0%	5.8 - 10.3%
Over 90 Days Outstanding	12.3%	5.0 - 18.1%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$773	$261 - 1,647
31-60 Days Outstanding	$1,335	$230 - 2,386
61-90 Days Outstanding	$1,196	$214 - 2,264
Over 90 Days Outstanding	$1,406	$182 - 1,994
Total	$985	$261 - 1,617
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	65.3%	55.2 - 73.0%
31-60 Days Outstanding	15.6%	10.6 - 18.8%
61-90 Days Outstanding	7.1%	4.2 - 9.1%
Over 90 Days Outstanding	12.0%	4.7 - 15.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.1%	72.0 - 78.6%
Gross Margin	24.9%	21.5 - 28.0%
Operating Expenses:		
Selling Expenses	6.5%	5.1 - 7.7%
Delivery Expenses	2.2%	1.6 - 2.7%
Warehouse Expenses	3.0%	1.8 - 3.7%
General & Administrative Expenses	9.3%	7.2 - 11.5%
Occupancy Expenses	2.7%	1.7 - 3.4%
Other Operating Expenses	0.6%	0.0 - 0.2%
Total Operating Expenses	24.2%	21.2 - 27.9%
Net Operating Profit	0.7%	-0.6 - 2.2%
Non-Operating Income	2.7%	1.3 - 2.8%
Non-Operating Expenses	2.1%	1.1 - 2.9%
Net Profit Before Tax	1.4%	-0.4 - 2.2%
Net Profit After Tax	1.1%	0.3 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.2%	21.2 - 27.9%
Total Operating Expense to Gross Margin	97.3%	90.7 - 102.5%
Non-People Expense to Net Sales	9.0%	7.2 - 10.2%
Non-People Expense to Gross Margin	36.3%	29.9 - 40.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.7%
Times Interest Earned	2.0X	1.0 - 8.0X
BALANCE SHEET		
Cash	5.2%	0.5 - 5.2%
Accounts & Notes Receivable, Trade(Net)	31.2%	25.3 - 36.9%
Inventory	48.3%	41.5 - 55.7%
Other Current Assets	2.2%	0.4 - 2.3%
Total Current Assets	86.8%	83.8 - 92.9%
All Other Assets	13.2%	7.1 - 16.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.0%	23.2 - 48.5%
Total Long-Term Liabilities	14.3%	1.9 - 23.0%
Total Liabilities	52.3%	31.4 - 70.0%
Total Net Worth	47.7%	30.0 - 68.6%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.7%	1.4 - 16.6%
Total Assets to Net Worth	1.5X	1.2 - 2.2X
Net Profit After Tax to Total Assets	4.2%	1.0 - 6.7%
Net Sales to Total Assets	2.5X	2.3 - 2.9X
Net Profit After Tax to Net Sales	1.7%	0.4 - 3.3%
Net Profit Before Tax to Net Worth	10.0%	1.9 - 22.9%
Net Profit Before Tax to Total Assets	5.5%	1.3 - 11.5%
EBIT to Total Assets	7.3%	2.0 - 12.7%
SALES ANALYSIS		
Net Sales($000)	$2,351	$1,608 - 3,374
Percent Sales Change from Prior Year	1.4%	-3.5 - 4.1%
Sales Mix:		
Direct Sales	5.2%	0.2 - 7.2%
Warehouse Sales - Counter and Delivery	94.8%	92.8 - 99.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	85.8%	75.8 - 100.0%
Heating & Cooling Supplies & Equipment	3.8%	0.0 - 5.0%
P-V-F (Pipes-Valves-Fittings)	5.8%	0.0 - 10.0%
Other Supplies & Equipment	1.9%	0.0 - 0.8%
Other	2.7%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.3%	22.4 - 27.9%
Gross Margin on Direct Shipments	INSUFFICIENT DATA	
Gross Margin on Warehouse Sales	27.1%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.8X	2.5 - 3.2X
Total Debt to Net Worth	49.5%	24.0 - 121.4%
Current Debt to Net Worth	31.1%	20.0 - 92.1%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.6X	2.1 - 5.6X
Current Assets Minus Inventory/Curr Debt	1.2X	0.9 - 2.5X
Net Sales to Working Capital	4.8X	3.2 - 6.6X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.2%	-1.0 - 4.2%
Net Profit Before Tax plus Depreciation to Total Assets	3.0%	-3.4 - 9.2%
Working Capital to Total Assets	56.6%	43.1 - 71.2%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.7 - 7.3
Average Invoice Size	$108	$82 - 178
Average Billing Line	$23.84	$8.97 - 33.15

AMERICAN SUPPLY ASSOCIATION
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PLUMBING SUPPLY FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$182,470	$150,975 - 226,368
Gross Margin Per Employee	$50,414	$39,652 - 56,806
Average Compensation Per Employee	$22,584	$21,090 - 25,922
Average Fringe Benefits Per Employee	$4,799	$3,727 - 6,195
Compensation & Fringes Per Employee	$26,299	$24,916 - 30,575
Payroll to Net Sales	13.2%	11.0 - 15.4%
Fringe Benefits to Net Sales	2.7%	2.1 - 4.0%
Payroll & Fringes to Net Sales	15.5%	13.0 - 19.1%
Payroll to Gross Margin	47.8%	45.8 - 54.5%
Fringe Benefits to Gross Margin	9.6%	8.4 - 12.3%
Payroll & Fringes to Gross Margin	56.8%	50.8 - 66.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.9X	3.2 - 4.1X
% of Whse Sales from Non-Stock Items	4.0%	2.0 - 7.5%
Cost of In-Stock Whse Sales/Ave Inventory	3.2X	
No. of Days Average Inventory Carried	94 Days	90 - 116 Days
Total Cost of Goods Sold to Ave Inventory	4.1X	3.0 - 4.6X
Whse Gross Margin Return on Ave Inventory	121%	109 - 155%
Turn & Earn Profitability Index	82%	
Percent of Firms on LIFO	30.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	39 - 51 Days
Gross Margin Return on Receivables	152%	140 - 208%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.3%	60.4 - 73.6%
31-60 Days Outstanding	15.7%	12.0 - 19.2%
61-90 Days Outstanding	6.6%	4.1 - 8.2%
Over 90 Days Outstanding	11.5%	3.5 - 18.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$178	
31-60 Days Outstanding	$211	
61-90 Days Outstanding	$161	
Over 90 Days Outstanding	$123	
Total	$171	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	64.7%	
31-60 Days Outstanding	17.6%	
61-90 Days Outstanding	7.6%	
Over 90 Days Outstanding	10.1%	
Total	100.0%	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	72.1 - 77.6%
Gross Margin	24.3%	22.4 - 27.9%
Operating Expenses:		
Selling Expenses	5.9%	4.2 - 7.4%
Delivery Expenses	2.6%	1.9 - 3.2%
Warehouse Expenses	2.8%	1.3 - 4.2%
General & Administrative Expenses	10.6%	7.5 - 12.1%
Occupancy Expenses	3.1%	1.7 - 3.5%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	25.1%	20.2 - 27.1%
Net Operating Profit	-0.8%	-0.4 - 1.6%
Non-Operating Income	2.9%	1.3 - 3.1%
Non-Operating Expenses	0.1%	0.1 - 1.9%
Net Profit Before Tax	2.1%	-1.3 - 2.4%
Net Profit After Tax	1.7%	0.4 - 3.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.1%	20.2 - 27.1%
Total Operating Expense to Gross Margin	102.1%	93.8 - 101.8%
Non-People Expense to Net Sales	10.6%	7.4 - 10.1%
Non-People Expense to Gross Margin	43.5%	30.3 - 48.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.3%	0.0 - 0.9%
Times Interest Earned	4.0X	2.0 - 42.0X
BALANCE SHEET		
Cash	9.6%	0.9 - 12.1%
Accounts & Notes Receivable, Trade(Net)	27.0%	19.3 - 33.9%
Inventory	50.3%	41.5 - 60.0%
Other Current Assets	2.8%	0.3 - 2.0%
Total Current Assets	89.6%	85.4 - 96.6%
All Other Assets	10.4%	

AMERICAN SUPPLY ASSOCIATION
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PLUMBING SUPPLY FIRMS -- SALES $4,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.5%	2.9 - 12.5%
Total Assets to Net Worth	1.8X	1.5 - 2.8X
Net Profit After Tax to Total Assets	3.9%	1.7 - 6.9%
Net Sales to Total Assets	2.8X	2.4 - 3.2X
Net Profit After Tax to Net Sales	1.6%	0.6 - 2.4%
Net Profit Before Tax to Net Worth	9.6%	3.7 - 16.1%
Net Profit Before Tax to Total Assets	5.1%	1.9 - 8.4%
EBIT to Total Assets	7.2%	4.1 - 11.0%
SALES ANALYSIS		
Net Sales($000)	$5,163	$4,734 - 5,976
Percent Sales Change from Prior Year	1.7%	-11.8 - 11.9%
Sales Mix:		
Direct Sales	13.9%	4.3 - 15.6%
Warehouse Sales - Counter and Delivery	86.1%	84.4 - 95.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	78.8%	67.0 - 90.8%
Heating & Cooling Supplies & Equipment	10.5%	0.0 - 20.0%
P-V-F (Pipes-Valves-Fittings)	7.1%	0.0 - 10.0%
Other Supplies & Equipment	1.7%	0.0 - 3.8%
Other	2.0%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.6%	26.3 - 30.6%
Gross Margin on Direct Shipments	11.8%	10.1 - 23.8%
Gross Margin on Warehouse Sales	28.9%	26.9 - 31.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.7 - 3.5X
Total Debt to Net Worth	83.6%	45.5 - 177.5%
Current Debt to Net Worth	60.0%	36.4 - 129.8%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.7X	2.1 - 3.6X
Current Assets Minus Inventory/Curr Debt	1.2X	0.9 - 1.8X
Net Sales to Working Capital	5.1X	3.8 - 6.2X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.6%	1.2 - 3.4%
Net Profit Before Tax plus Depreciation to Total Assets	7.3%	3.6 - 10.9%
Working Capital to Total Assets	55.0%	43.9 - 70.7%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.8 - 10.0
Average Invoice Size	$198	$119 - 247
Average Billing Line	$23.10	$18.28 - 41.13

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES $4,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$217,076	$187,594 - 269,785
Gross Margin Per Employee	$60,148	$47,919 - 67,993
Average Compensation Per Employee	$31,308	$26,149 - 33,709
Average Fringe Benefits Per Employee	$5,393	$4,542 - 7,155
Compensation & Fringes Per Employee	$37,533	$30,056 - 41,230
Payroll to Net Sales	13.8%	11.8 - 16.0%
Fringe Benefits to Net Sales	2.6%	2.1 - 3.4%
Payroll & Fringes to Net Sales	16.5%	13.8 - 19.3%
Payroll to Gross Margin	51.7%	48.3 - 58.8%
Fringe Benefits to Gross Margin	9.6%	8.3 - 11.9%
Payroll & Fringes to Gross Margin	60.7%	56.7 - 68.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.6X	3.0 - 4.6X
% of Whse Sales from Non-Stock Items	9.8%	4.3 - 16.7%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.4 - 4.3X
No. of Days Average Inventory Carried	101 Days	80 - 124 Days
Total Cost of Goods Sold to Ave Inventory	4.5X	3.3 - 5.8X
Whse Gross Margin Return on Ave Inventory	136%	118 - 179%
Turn & Earn Profitability Index	95%	71 - 125%
Percent of Firms on LIFO	53.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	42 - 55 Days
Gross Margin Return on Receivables	212%	152 - 249%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	59.5%	49.8 - 68.1%
31-60 Days Outstanding	19.1%	15.7 - 22.6%
61-90 Days Outstanding	9.0%	6.6 - 11.3%
Over 90 Days Outstanding	12.3%	3.7 - 18.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$860	$717 - 1,794
31-60 Days Outstanding	$2,386	$541 - 4,057
61-90 Days Outstanding	$2,085	$509 - 3,276
Over 90 Days Outstanding	$1,476	$239 - 1,865
Total	$990	$814 - 2,197
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	66.0%	48.6 - 81.1%
31-60 Days Outstanding	14.0%	6.6 - 17.4%
61-90 Days Outstanding	7.5%	4.2 - 9.4%
Over 90 Days Outstanding	12.5%	2.4 - 15.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES $4,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.4%	69.4 - 73.7%
Gross Margin	27.6%	26.3 - 30.6%
Operating Expenses:		
Selling Expenses	6.8%	5.0 - 8.3%
Delivery Expenses	2.4%	1.8 - 3.0%
Warehouse Expenses	2.8%	1.7 - 3.9%
General & Administrative Expenses	10.1%	7.8 - 12.2%
Occupancy Expenses	2.8%	2.3 - 3.6%
Other Operating Expenses	1.6%	0.0 - 1.5%
Total Operating Expenses	26.6%	24.6 - 28.5%
Net Operating Profit	1.0%	-0.4 - 2.0%
Non-Operating Income	2.2%	1.3 - 2.9%
Non-Operating Expenses	1.7%	1.1 - 2.1%
Net Profit Before Tax	1.8%	0.4 - 3.0%
Net Profit After Tax	1.6%	0.6 - 2.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	26.6%	24.6 - 28.5%
Total Operating Expense to Gross Margin	96.7%	92.2 - 102.0%
Non-People Expense to Net Sales	8.9%	7.9 - 9.3%
Non-People Expense to Gross Margin	32.3%	29.2 - 36.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.[illegible]%	0.3 - 1.4%
Times Interest Earned	4.0X	2.0 - 9.0X
BALANCE SHEET		
Cash	8.1%	0.6 - 14.8%
Accounts & Notes Receivable, Trade(Net)	32.3%	27.3 - 38.7%
Inventory	45.2%	38.7 - 54.6%
Other Current Assets	1.9%	0.3 - 1.9%
Total Current Assets	87.5%	85.7 - 92.7%
All Other Assets	12.5%	7.3 - 14.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.8%	24.7 - 42.0%
Total Long-Term Liabilities	14.0%	1.9 - 21.8%
Total Liabilities	47.8%	32.5 - 68.6%
Total Net Worth	52.2%	31.4 - 67.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	5.7%	2.1 - 10.4%
Total Assets to Net Worth	2.3X	1.5 - 3.5X
Net Profit After Tax to Total Assets	3.2%	0.7 - 4.9%
Net Sales to Total Assets	2.7X	2.2 - 2.8X
Net Profit After Tax to Net Sales	1.0%	0.3 - 1.8%
Net Profit Before Tax to Net Worth	7.9%	3.2 - 15.3%
Net Profit Before Tax to Total Assets	4.3%	1.2 - 6.8%
EBIT to Total Assets	6.6%	5.0 - 10.2%
SALES ANALYSIS		
Net Sales($000)	$8,959	$7,978 - 9,295
Percent Sales Change from Prior Year	0.8%	-7.0 - 9.6%
Sales Mix:		
Direct Sales	7.9%	2.4 - 11.7%
Warehouse Sales - Counter and Delivery	92.1%	88.3 - 97.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	78.9%	65.0 - 98.8%
Heating & Cooling Supplies & Equipment	13.3%	0.0 - 24.8%
P-V-F (Pipes-Valves-Fittings)	4.3%	0.0 - 5.0%
Other Supplies & Equipment	1.8%	0.0 - 0.4%
Other	1.8%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.2%	22.4 - 28.9%
Gross Margin on Direct Shipments	10.5%	8.0 - 13.7%
Gross Margin on Warehouse Sales	25.7%	23.5 - 30.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.9X	2.5 - 3.2X
Total Debt to Net Worth	111.5%	44.4 - 253.5%
Current Debt to Net Worth	86.6%	36.7 - 161.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.1X	1.7 - 3.6X
Current Assets Minus Inventory/Curr Debt	0.8X	0.6 - 1.4X
Net Sales to Working Capital	5.3X	3.8 - 7.0X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.1%	1.4 - 4.1%
Net Profit Before Tax plus Depreciation to Total Assets	7.2%	3.9 - 8.9%
Working Capital to Total Assets	47.1%	33.6 - 62.1%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.5	3.9 - 6.2
Average Invoice Size	$202	$108 - 237
Average Billing Line	$31.59	$22.66 - 37.93

AMERICAN SUPPLY ASSOCIATION
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PLUMBING SUPPLY FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$215,940	$194,397 - 241,726
Gross Margin Per Employee	$50,062	$46,867 - 61,264
Average Compensation Per Employee	$24,921	$23,503 - 28,284
Average Fringe Benefits Per Employee	$4,907	$4,373 - 5,254
Compensation & Fringes Per Employee	$29,414	$26,512 - 34,297
Payroll to Net Sales	12.4%	11.0 - 14.8%
Fringe Benefits to Net Sales	2.3%	1.8 - 2.8%
Payroll & Fringes to Net Sales	14.3%	12.8 - 16.5%
Payroll to Gross Margin	48.8%	46.4 - 52.4%
Fringe Benefits to Gross Margin	9.8%	7.6 - 10.3%
Payroll & Fringes to Gross Margin	57.4%	53.5 - 62.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.5X	2.6 - 4.1X
% of Whse Sales from Non-Stock Items	5.0%	2.0 - 10.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.3 - 3.6X
No. of Days Average Inventory Carried	105 Days	90 - 139 Days
Total Cost of Goods Sold to Ave Inventory	3.8X	2.9 - 4.3X
Whse Gross Margin Return on Ave Inventory	114%	102 - 140%
Turn & Earn Profitability Index	85%	73 - 99%
Percent of Firms on LIFO	62.5%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	40 - 50 Days
Gross Margin Return on Receivables	208%	179 - 238%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	59.8%	52.6 - 66.8%
31-60 Days Outstanding	18.6%	15.6 - 21.5%
61-90 Days Outstanding	8.4%	6.2 - 11.5%
Over 90 Days Outstanding	13.2%	8.3 - 16.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$552	
31-60 Days Outstanding	$1,099	
61-90 Days Outstanding	$1,196	
Over 90 Days Outstanding	$1,466	
Total	$672	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	68.0%	
31-60 Days Outstanding	15.3%	
61-90 Days Outstanding	7.0%	
Over 90 Days Outstanding	9.7%	
Total	100.0%	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.8%	71.1 - 77.6%
Gross Margin	25.2%	22.4 - 28.9%
Operating Expenses:		
Selling Expenses	6.5%	5.5 - 7.6%
Delivery Expenses	2.1%	1.5 - 2.4%
Warehouse Expenses	3.2%	2.0 - 3.6%
General & Administrative Expenses	9.2%	7.5 - 11.3%
Occupancy Expenses	2.9%	2.1 - 3.6%
Other Operating Expenses	0.4%	0.0 - 0.8%
Total Operating Expenses	24.3%	21.9 - 28.0%
Net Operating Profit	0.9%	0.1 - 1.7%
Non-Operating Income	1.9%	0.9 - 2.8%
Non-Operating Expenses	0.4%	0.2 - 3.0%
Net Profit Before Tax	1.5%	-0.3 - 2.5%
Net Profit After Tax	1.0%	0.3 - 1.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.3%	21.9 - 28.0%
Total Operating Expense to Gross Margin	96.9%	93.2 - 99.7%
Non-People Expense to Net Sales	9.7%	7.9 - 11.5%
Non-People Expense to Gross Margin	38.3%	34.4 - 43.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.3 - 2.0%
Times Interest Earned	2.4X	1.2 - 5.4X
BALANCE SHEET		
Cash	2.9%	0.4 - 2.7%
Accounts & Notes Receivable, Trade(Net)	29.5%	25.5 - 33.2%
Inventory	53.3%	48.9 - 61.4%
Other Current Assets	2.1%	0.4 - 1.8%
Total Current Assets	87.8%	87.2 - 92.8%
All Other Assets	12.2%	7.1 - 12.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.7%	23.5 - 54.6%
Total Long-Term Liabilities	12.6%	0.3 - 17.3%
Total Liabilities	53.3%	30.7 - 71.7%
Total Net Worth	46.7%	28.3 - 69.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	5.0%	0.0 - 12.9%
Total Assets to Net Worth	2.8X	1.9 - 4.6X
Net Profit After Tax to Total Assets	2.0%	-0.0 - 3.9%
Net Sales to Total Assets	2.8X	2.3 - 3.1X
Net Profit After Tax to Net Sales	0.7%	0.0 - 1.3%
Net Profit Before Tax to Net Worth	7.5%	0.0 - 21.2%
Net Profit Before Tax to Total Assets	2.6%	-0.0 - 6.1%
EBIT to Total Assets	6.9%	1.3 - 9.6%
SALES ANALYSIS		
Net Sales($000)	$25,081	$16,959 - 43,520
Percent Sales Change from Prior Year	1.4%	-5.4 - 7.9%
Sales Mix:		
Direct Sales	12.9%	7.9 - 17.9%
Warehouse Sales - Counter and Delivery	87.1%	82.1 - 92.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	74.3%	60.0 - 85.0%
Heating & Cooling Supplies & Equipment	9.7%	0.0 - 15.0%
P-V-F (Pipes-Valves-Fittings)	8.0%	0.0 - 12.0%
Other Supplies & Equipment	2.5%	0.0 - 4.5%
Other	5.5%	0.0 - 4.2%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.4%	20.9 - 25.4%
Gross Margin on Direct Shipments	11.0%	9.4 - 13.0%
Gross Margin on Warehouse Sales	25.0%	22.6 - 28.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.3X	2.9 - 3.7X
Total Debt to Net Worth	176.0%	85.4 - 361.7%
Current Debt to Net Worth	120.5%	77.1 - 271.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.0X	1.5 - 2.7X
Current Assets Minus Inventory/Curr Debt	0.9X	0.7 - 1.1X
Net Sales to Working Capital	6.7X	4.7 - 11.3X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.6%	0.6 - 2.8%
Net Profit Before Tax plus Depreciation to Total Assets	4.4%	1.7 - 7.7%
Working Capital to Total Assets	38.5%	25.1 - 48.6%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.9	4.1 - 6.0
Average Invoice Size	$190	$148 - 221
Average Billing Line	$38.64	$27.44 - 52.37

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$248,290	$214,682 - 263,478
Gross Margin Per Employee	$56,636	$47,408 - 63,609
Average Compensation Per Employee	$28,833	$24,947 - 32,055
Average Fringe Benefits Per Employee	$4,869	$4,145 - 6,217
Compensation & Fringes Per Employee	$34,508	$28,610 - 39,550
Payroll to Net Sales	11.4%	10.4 - 13.0%
Fringe Benefits to Net Sales	1.9%	1.8 - 2.5%
Payroll & Fringes to Net Sales	14.1%	12.2 - 15.6%
Payroll to Gross Margin	51.4%	46.4 - 55.1%
Fringe Benefits to Gross Margin	9.3%	7.9 - 10.8%
Payroll & Fringes to Gross Margin	59.7%	54.6 - 67.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.8X	3.0 - 4.5X
% of Whse Sales from Non-Stock Items	15.1%	10.9 - 17.9%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.4 - 3.8X
No. of Days Average Inventory Carried	96 Days	81 - 121 Days
Total Cost of Goods Sold to Ave Inventory	4.4X	3.9 - 5.6X
Whse Gross Margin Return on Ave Inventory	122%	100 - 159%
Turn & Earn Profitability Index	87%	74 - 129%
Percent of Firms on LIFO	72.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	43 - 62 Days
Gross Margin Return on Receivables	171%	139 - 183%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	61.8%	53.3 - 68.6%
31-60 Days Outstanding	18.1%	14.4 - 22.0%
61-90 Days Outstanding	7.9%	5.8 - 9.9%
Over 90 Days Outstanding	12.2%	5.6 - 18.1%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$1,435	$268 - 1,984
31-60 Days Outstanding	$1,511	$284 - 2,894
61-90 Days Outstanding	$1,531	$427 - 2,894
Over 90 Days Outstanding	$1,505	$288 - 2,894
Total	$1,506	$486 - 1,867
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	63.7%	54.4 - 65.0%
31-60 Days Outstanding	15.9%	8.3 - 21.3%
61-90 Days Outstanding	6.6%	2.6 - 9.0%
Over 90 Days Outstanding	13.9%	5.6 - 19.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING SUPPLY FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.6%	74.6 - 79.1%
Gross Margin	23.4%	20.9 - 25.4%
Operating Expenses:		
Selling Expenses	6.4%	5.1 - 7.7%
Delivery Expenses	2.0%	1.7 - 2.6%
Warehouse Expenses	3.0%	2.1 - 3.7%
General & Administrative Expenses	8.7%	6.5 - 10.5%
Occupancy Expenses	2.3%	1.6 - 2.6%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	22.6%	19.1 - 25.4%
Net Operating Profit	0.8%	-0.6 - 2.7%
Non-Operating Income	2.5%	1.4 - 2.8%
Non-Operating Expenses	2.4%	1.3 - 3.6%
Net Profit Before Tax	0.9%	-0.7 - 1.8%
Net Profit After Tax	0.7%	0.0 - 1.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.6%	19.1 - 25.4%
Total Operating Expense to Gross Margin	96.8%	88.4 - 102.9%
Non-People Expense to Net Sales	8.3%	6.6 - 9.4%
Non-People Expense to Gross Margin	35.8%	28.5 - 41.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.2%	0.7 - 2.0%
Times Interest Earned	2.0X	1.0 - 4.0X
BALANCE SHEET		
Cash	1.6%	0.2 - 2.8%
Accounts & Notes Receivable, Trade(Net)	33.7%	28.3 - 37.4%
Inventory	46.5%	41.4 - 52.7%
Other Current Assets	2.2%	0.5 - 2.9%
Total Current Assets	84.1%	80.0 - 91.8%
All Other Assets	16.0%	8.3 - 20.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	44.8%	32.0 - 60.2%
Total Long-Term Liabilities	17.4%	4.0 - 24.7%
Total Liabilities	62.2%	46.4 - 78.5%
Total Net Worth	37.9%	21.5 - 53.6%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT PLUMBING SUPPLY FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	12.0%	8.3 - 17.9%
Total Assets to Net Worth	1.8X	1.4 - 2.6X
Net Profit After Tax to Total Assets	5.9%	4.1 - 8.3%
Net Sales to Total Assets	2.8X	2.4 - 3.1X
Net Profit After Tax to Net Sales	2.3%	1.5 - 3.3%
Net Profit Before Tax to Net Worth	17.6%	11.4 - 25.5%
Net Profit Before Tax to Total Assets	7.6%	6.0 - 11.9%
EBIT to Total Assets	10.1%	8.0 - 13.4%
SALES ANALYSIS		
Net Sales($000)	$6,658	$4,683 - 11,784
Percent Sales Change from Prior Year	3.5%	-5.8 - 9.2%
Sales Mix:		
Direct Sales	11.7%	4.3 - 12.5%
Warehouse Sales - Counter and Delivery	88.3%	87.5 - 95.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	80.5%	68.0 - 98.0%
Heating & Cooling Supplies & Equipment	7.9%	0.0 - 10.0%
P-V-F (Pipes-Valves-Fittings)	6.1%	0.0 - 10.0%
Other Supplies & Equipment	2.1%	0.0 - 2.0%
Other	3.3%	0.0 - 1.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.2%	23.0 - 28.9%
Gross Margin on Direct Shipments	10.8%	10.0 - 14.4%
Gross Margin on Warehouse Sales	27.1%	24.7 - 30.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.1X	2.6 - 3.5X
Total Debt to Net Worth	82.7%	35.8 - 157.1%
Current Debt to Net Worth	61.8%	30.8 - 111.1%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.5X	2.0 - 4.3X
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.8X
Net Sales to Working Capital	5.2X	3.8 - 7.4X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.9%	2.8 - 4.8%
Net Profit Before Tax plus Depreciation to Total Assets	10.3%	7.7 - 12.4%
Working Capital to Total Assets	51.1%	40.1 - 67.1%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.1	4.4 - 6.5
Average Invoice Size	$195	$110 - 233
Average Billing Line	$33.50	$18.28 - 42.33

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT PLUMBING SUPPLY FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$231,199	$197,149 - 274,834
Gross Margin Per Employee	$60,356	$52,757 - 68,332
Average Compensation Per Employee	$29,937	$24,754 - 33,155
Average Fringe Benefits Per Employee	$5,319	$4,534 - 6,692
Compensation & Fringes Per Employee	$35,682	$28,278 - 40,477
Payroll to Net Sales	12.6%	11.0 - 15.0%
Fringe Benefits to Net Sales	2.3%	1.8 - 2.8%
Payroll & Fringes to Net Sales	15.0%	12.9 - 18.1%
Payroll to Gross Margin	48.3%	45.0 - 52.2%
Fringe Benefits to Gross Margin	9.2%	8.0 - 10.0%
Payroll & Fringes to Gross Margin	56.7%	53.8 - 62.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.8X	3.1 - 4.9X
% of Whse Sales from Non-Stock Items	12.0%	4.5 - 18.6%
Cost of In-Stock Whse Sales/Ave Inventory	2.7X	2.4 - 3.9X
No. of Days Average Inventory Carried	95 Days	75 - 117 Days
Total Cost of Goods Sold to Ave Inventory	4.4X	3.7 - 5.6X
Whse Gross Margin Return on Ave Inventory	131%	110 - 177%
Turn & Earn Profitability Index	97%	77 - 129%
Percent of Firms on LIFO	57.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	40 - 55 Days
Gross Margin Return on Receivables	192%	161 - 221%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.8%	57.4 - 72.4%
31-60 Days Outstanding	18.8%	14.6 - 22.4%
61-90 Days Outstanding	7.0%	5.5 - 9.4%
Over 90 Days Outstanding	9.4%	3.2 - 13.8%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$780	$262 - 1,469
31-60 Days Outstanding	$1,247	$253 - 2,626
61-90 Days Outstanding	$1,506	$270 - 2,428
Over 90 Days Outstanding	$1,406	$146 - 1,868
Total	$899	$248 - 1,648
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	73.3%	68.3 - 83.1%
31-60 Days Outstanding	12.9%	8.9 - 17.6%
61-90 Days Outstanding	6.0%	3.9 - 7.4%
Over 90 Days Outstanding	7.9%	2.3 - 9.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT PLUMBING SUPPLY FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.8%	71.1 - 77.0%
Gross Margin	26.2%	23.0 - 28.9%
Operating Expenses:		
Selling Expenses	6.6%	5.7 - 7.6%
Delivery Expenses	2.2%	1.6 - 2.9%
Warehouse Expenses	2.9%	1.8 - 3.5%
General & Administrative Expenses	9.0%	7.2 - 10.4%
Occupancy Expenses	2.5%	1.8 - 3.3%
Other Operating Expenses	0.6%	0.0 - 0.1%
Total Operating Expenses	23.8%	21.0 - 27.4%
Net Operating Profit	2.5%	1.4 - 3.8%
Non-Operating Income	2.0%	0.8 - 2.7%
Non-Operating Expenses	1.5%	0.9 - 1.8%
Net Profit Before Tax	2.9%	2.0 - 3.4%
Net Profit After Tax	2.3%	1.5 - 3.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.8%	21.0 - 27.4%
Total Operating Expense to Gross Margin	90.7%	85.2 - 94.4%
Non-People Expense to Net Sales	8.3%	6.7 - 9.1%
Non-People Expense to Gross Margin	31.7%	27.6 - 35.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.2 - 1.0%
Times Interest Earned	7.0X	3.0 - 22.0X
BALANCE SHEET		
Cash	7.4%	0.7 - 11.6%
Accounts & Notes Receivable, Trade(Net)	31.1%	25.1 - 37.0%
Inventory	47.8%	39.5 - 55.7%
Other Current Assets	2.0%	0.4 - 2.2%
Total Current Assets	88.3%	86.0 - 93.9%
All Other Assets	11.7%	6.1 - 14.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.9%	22.0 - 44.3%
Total Long-Term Liabilities	11.4%	0.2 - 17.0%
Total Liabilities	46.3%	26.5 - 64.0%
Total Net Worth	53.7%	36.0 - 73.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PVF Firms

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.3%	2.4 - 14.4%
Total Assets to Net Worth	2.2X	1.7 - 3.0X
Net Profit After Tax to Total Assets	3.4%	0.3 - 6.4%
Net Sales to Total Assets	3.0X	2.5 - 3.3X
Net Profit After Tax to Net Sales	1.2%	0.2 - 1.7%
Net Profit Before Tax to Net Worth	10.1%	2.7 - 18.0%
Net Profit Before Tax to Total Assets	4.5%	1.2 - 8.9%
EBIT to Total Assets	7.6%	3.5 - 11.1%
SALES ANALYSIS		
Net Sales($000)	$10,326	$5,127 - 24,333
Percent Sales Change from Prior Year	3.0%	-5.6 - 11.8%
Sales Mix:		
Direct Sales	18.7%	7.7 - 23.7%
Warehouse Sales - Counter and Delivery	81.3%	76.3 - 92.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	5.5%	0.0 - 5.0%
Heating & Cooling Supplies & Equipment	1.1%	0.0 - 0.0%
P-V-F (Pipes-Valves-Fittings)	89.0%	87.3 - 100.0%
Other Supplies & Equipment	1.3%	0.0 - 0.0%
Other	3.1%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.6%	19.8 - 27.2%
Gross Margin on Direct Shipments	11.2%	10.1 - 16.0%
Gross Margin on Warehouse Sales	25.9%	21.0 - 31.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.3X	2.9 - 3.7X
Total Debt to Net Worth	123.9%	69.8 - 202.0%
Current Debt to Net Worth	100.2%	41.4 - 142.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.2X	1.7 - 3.7X
Current Assets Minus Inventory/Curr Debt	1.1X	0.9 - 1.8X
Net Sales to Working Capital	6.9X	4.6 - 9.3X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.2%	1.1 - 3.0%
Net Profit Before Tax plus Depreciation to Total Assets	6.0%	1.9 - 9.5%
Working Capital to Total Assets	44.9%	31.8 - 57.6%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.0	3.7 - 5.0
Average Invoice Size	$322	$237 - 522
Average Billing Line	$73.36	$59.02 - 140.19

AMERICAN SUPPLY ASSOCIATION
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P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$289,322	$254,531 - 308,309
Gross Margin Per Employee	$67,446	$56,653 - 72,340
Average Compensation Per Employee	$31,849	$26,970 - 36,097
Average Fringe Benefits Per Employee	$6,317	$4,742 - 8,249
Compensation & Fringes Per Employee	$38,790	$33,876 - 43,659
Payroll to Net Sales	11.6%	10.4 - 12.8%
Fringe Benefits to Net Sales	2.2%	1.7 - 3.2%
Payroll & Fringes to Net Sales	13.7%	12.7 - 16.1%
Payroll to Gross Margin	49.4%	45.4 - 53.2%
Fringe Benefits to Gross Margin	9.6%	8.1 - 11.5%
Payroll & Fringes to Gross Margin	59.5%	54.0 - 64.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.3X	2.7 - 4.8X
% of Whse Sales from Non-Stock Items	30.0%	15.8 - 40.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	1.6 - 3.5X
No. of Days Average Inventory Carried	85 Days	76 - 133 Days
Total Cost of Goods Sold to Ave Inventory	5.5X	3.4 - 6.3X
Whse Gross Margin Return on Ave Inventory	143%	108 - 189%
Turn & Earn Profitability Index	110%	84 - 129%
Percent of Firms on LIFO	66.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	44 - 55 Days
Gross Margin Return on Receivables	175%	139 - 205%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.4%	52.7 - 73.2%
31-60 Days Outstanding	23.3%	17.0 - 30.1%
61-90 Days Outstanding	7.1%	3.7 - 9.9%
Over 90 Days Outstanding	6.2%	1.8 - 9.0%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$465	$239 - 727
31-60 Days Outstanding	$257	$174 - 434
61-90 Days Outstanding	$220	$98 - 439
Over 90 Days Outstanding	$155	$84 - 405
Total	$494	$206 - 710
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	60.5%	54.6 - 63.0%
31-60 Days Outstanding	22.3%	16.9 - 27.8%
61-90 Days Outstanding	7.6%	6.0 - 10.1%
Over 90 Days Outstanding	9.6%	5.4 - 11.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.4%	72.8 - 80.2%
Gross Margin	25.6%	19.8 - 27.2%
Operating Expenses:		
Selling Expenses	7.5%	6.4 - 9.4%
Delivery Expenses	2.1%	1.3 - 2.9%
Warehouse Expenses	3.1%	2.1 - 3.6%
General & Administrative Expenses	9.0%	6.2 - 8.7%
Occupancy Expenses	1.9%	1.2 - 2.0%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	23.7%	18.8 - 24.0%
Net Operating Profit	1.9%	0.2 - 3.3%
Non-Operating Income	1.3%	0.3 - 1.6%
Non-Operating Expenses	1.7%	1.2 - 2.1%
Net Profit Before Tax	1.5%	0.0 - 2.2%
Net Profit After Tax	1.2%	0.2 - 1.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.7%	18.8 - 24.0%
Total Operating Expense to Gross Margin	92.3%	86.5 - 98.8%
Non-People Expense to Net Sales	8.7%	6.0 - 7.9%
Non-People Expense to Gross Margin	32.3%	26.6 - 36.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.5%
Times Interest Earned	3.0X	1.0 - 5.0X
BALANCE SHEET		
Cash	4.2%	0.3 - 4.8%
Accounts & Notes Receivable, Trade(Net)	35.7%	27.3 - 44.0%
Inventory	45.6%	38.7 - 52.5%
Other Current Assets	2.6%	0.3 - 1.4%
Total Current Assets	88.0%	84.3 - 93.0%
All Other Assets	12.0%	7.0 - 15.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.5%	24.8 - 51.8%
Total Long-Term Liabilities	14.1%	2.3 - 20.4%
Total Liabilities	54.6%	41.1 - 66.9%
Total Net Worth	45.4%	33.1 - 58.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.0%	2.9 - 24.7%
Total Assets to Net Worth	1.7X	1.5 - 3.3X
Net Profit After Tax to Total Assets	2.7%	1.5 - 4.0%
Net Sales to Total Assets	3.1X	2.5 - 3.2X
Net Profit After Tax to Net Sales	1.0%	0.4 - 1.2%
Net Profit Before Tax to Net Worth	8.8%	3.7 - 42.8%
Net Profit Before Tax to Total Assets	3.2%	1.5 - 5.1%
EBIT to Total Assets	7.6%	3.5 - 8.9%
SALES ANALYSIS		
Net Sales($000)	$3,476	$2,573 - 4,013
Percent Sales Change from Prior Year	-5.2%	-10.7 - 0.1%
Sales Mix:		
Direct Sales	18.2%	7.8 - 20.5%
Warehouse Sales - Counter and Delivery	81.8%	79.5 - 92.2%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	1.7%	0.0 - 0.0%
Heating & Cooling Supplies & Equipment	0.0%	0.0 - 0.0%
P-V-F (Pipes-Valves-Fittings)	96.1%	100.0 - 100.0%
Other Supplies & Equipment	1.7%	0.0 - 0.0%
Other	0.6%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	30.5%	
Gross Margin on Direct Shipments	14.7%	
Gross Margin on Warehouse Sales	31.5%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.4X	2.9 - 3.7X
Total Debt to Net Worth	72.8%	46.6 - 234.2%
Current Debt to Net Worth	37.4%	18.1 - 109.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	4.4X	2.3 - 5.7X
Current Assets Minus Inventory/Curr Debt	2.2X	1.2 - 3.4X
Net Sales to Working Capital	4.6X	
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.3%	
Net Profit Before Tax plus Depreciation to Total Assets	3.8%	
Working Capital to Total Assets	47.8%	
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice		INSUFFICIENT DATA
Average Invoice Size		INSUFFICIENT DATA
Average Billing Line		INSUFFICIENT DATA

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$236,083	$186,955 - 276,498
Gross Margin Per Employee	$59,882	$56,696 - 64,714
Average Compensation Per Employee	$30,524	$26,154 - 31,849
Average Fringe Benefits Per Employee	$6,680	$5,602 - 9,449
Compensation & Fringes Per Employee	$37,935	$36,762 - 38,355
Payroll to Net Sales	11.7%	10.8 - 17.9%
Fringe Benefits to Net Sales	3.3%	1.9 - 4.7%
Payroll & Fringes to Net Sales	16.0%	14.6 - 20.7%
Payroll to Gross Margin	46.9%	43.8 - 51.0%
Fringe Benefits to Gross Margin	10.8%	8.1 - 15.2%
Payroll & Fringes to Gross Margin	59.5%	56.4 - 64.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.6X	2.8 - 4.8X
% of Whse Sales from Non-Stock Items	INSUFFICIENT DATA	
Cost of In-Stock Whse Sales/Ave Inventory	INSUFFICIENT DATA	
No. of Days Average Inventory Carried	101 Days	76 - 138 Days
Total Cost of Goods Sold to Ave Inventory	4.0X	3.0 - 6.4X
Whse Gross Margin Return on Ave Inventory	196%	134 - 220%
Turn & Earn Profitability Index	119%	
Percent of Firms on LIFO	50.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	36 - 48 Days
Gross Margin Return on Receivables	220%	
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.7%	55.7 - 80.5%
31-60 Days Outstanding	22.5%	12.9 - 32.4%
61-90 Days Outstanding	7.0%	3.0 - 11.3%
Over 90 Days Outstanding	2.8%	1.1 - 7.4%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	
Cost of Goods Sold	69.5%	
Gross Margin	30.5%	
Operating Expenses:		
Selling Expenses	7.4%	
Delivery Expenses	3.0%	
Warehouse Expenses	3.7%	
General & Administrative Expenses	10.9%	
Occupancy Expenses	3.4%	
Other Operating Expenses	0.5%	
Total Operating Expenses	28.9%	
Net Operating Profit	1.6%	
Non-Operating Income	1.0%	
Non-Operating Expenses	1.5%	
Net Profit Before Tax	1.1%	
Net Profit After Tax	1.0%	0.4 - 1.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	28.9%	
Total Operating Expense to Gross Margin	94.8%	
Non-People Expense to Net Sales	10.0%	
Non-People Expense to Gross Margin	31.7%	
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.2 - 1.6%
Times Interest Earned	3.0X	1.0 - 13.0X
BALANCE SHEET		
Cash	6.8%	0.2 - 13.2%
Accounts & Notes Receivable, Trade(Net)	30.2%	22.2 - 39.1%
Inventory	43.7%	35.0 - 46.4%
Other Current Assets	5.7%	0.0 - 0.8%
Total Current Assets	86.5%	84.0 - 91.7%
All Other Assets	13.5%	8.3 - 16.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	31.4%	14.8 - 40.2%
Total Long-Term Liabilities	20.3%	0.0 - 23.3%
Total Liabilities	51.7%	31.8 - 70.1%
Total Net Worth	48.3%	29.9 - 68.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES $5,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	10.4%	2.6 - 14.5%
Total Assets to Net Worth	2.3X	1.7 - 2.8X
Net Profit After Tax to Total Assets	3.5%	1.6 - 7.7%
Net Sales to Total Assets	3.3X	2.6 - 3.6X
Net Profit After Tax to Net Sales	1.3%	0.6 - 2.0%
Net Profit Before Tax to Net Worth	12.5%	3.5 - 18.0%
Net Profit Before Tax to Total Assets	7.0%	1.8 - 9.9%
EBIT to Total Assets	8.7%	3.5 - 12.0%
SALES ANALYSIS		
Net Sales($000)	$8,250	$6,182 - 10,076
Percent Sales Change from Prior Year	6.2%	-2.1 - 13.7%
Sales Mix:		
Direct Sales	14.1%	6.3 - 20.3%
Warehouse Sales - Counter and Delivery	85.9%	79.8 - 93.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	7.3%	0.0 - 6.3%
Heating & Cooling Supplies & Equipment	0.4%	0.0 - 0.0%
P-V-F (Pipes-Valves-Fittings)	83.5%	80.0 - 91.3%
Other Supplies & Equipment	1.8%	0.0 - 2.0%
Other	7.1%	0.0 - 6.2%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.9%	21.3 - 25.5%
Gross Margin on Direct Shipments	12.7%	
Gross Margin on Warehouse Sales	27.3%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.7X	2.9 - 4.5X
Total Debt to Net Worth	133.8%	64.5 - 181.8%
Current Debt to Net Worth	106.0%	41.7 - 120.0%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.5X	1.9 - 3.5X
Current Assets Minus Inventory/Curr Debt	1.2X	1.0 - 1.5X
Net Sales to Working Capital	7.3X	5.6 - 9.0X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.5%	1.5 - 3.7%
Net Profit Before Tax plus Depreciation to Total Assets	7.6%	4.0 - 11.9%
Working Capital to Total Assets	49.8%	38.6 - 57.7%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	
Average Invoice Size	$283	
Average Billing Line	$63.05	

AMERICAN SUPPLY ASSOCIATION
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P-V-F FIRMS -- SALES $5,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$289,699	$256,612 - 294,095
Gross Margin Per Employee	$70,207	$61,166 - 74,160
Average Compensation Per Employee	$32,547	$26,970 - 37,459
Average Fringe Benefits Per Employee	$6,283	$5,182 - 7,505
Compensation & Fringes Per Employee	$40,784	$31,760 - 44,180
Payroll to Net Sales	12.0%	11.3 - 13.8%
Fringe Benefits to Net Sales	2.2%	2.1 - 3.2%
Payroll & Fringes to Net Sales	14.5%	13.6 - 16.5%
Payroll to Gross Margin	49.4%	45.6 - 51.9%
Fringe Benefits to Gross Margin	9.6%	8.5 - 11.0%
Payroll & Fringes to Gross Margin	60.2%	53.3 - 62.2%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.6X	
% of Whse Sales from Non-Stock Items	38.5%	
Cost of In-Stock Whse Sales/Ave Inventory	2.9X	
No. of Days Average Inventory Carried	80 Days	
Total Cost of Goods Sold to Ave Inventory	6.1X	5.0 - 6.6X
Whse Gross Margin Return on Ave Inventory	169%	
Turn & Earn Profitability Index	117%	
Percent of Firms on LIFO	60.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	41 - 48 Days
Gross Margin Return on Receivables	192%	
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.1%	53.3 - 78.1%
31-60 Days Outstanding	23.1%	17.9 - 29.3%
61-90 Days Outstanding	6.2%	3.1 - 7.8%
Over 90 Days Outstanding	4.5%	1.8 - 7.8%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES $5,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.1%	74.5 - 78.7%
Gross Margin	26.9%	21.3 - 25.5%
Operating Expenses:		
Selling Expenses	8.7%	7.0 - 10.5%
Delivery Expenses	2.1%	1.6 - 2.8%
Warehouse Expenses	2.6%	2.1 - 2.8%
General & Administrative Expenses	10.6%	6.0 - 7.4%
Occupancy Expenses	1.3%	1.0 - 1.4%
Other Operating Expenses	0.1%	0.0 - 0.0%
Total Operating Expenses	25.2%	19.4 - 23.9%
Net Operating Profit	1.7%	0.2 - 3.2%
Non-Operating Income	2.0%	0.3 - 3.1%
Non-Operating Expenses	1.7%	0.9 - 1.8%
Net Profit Before Tax	2.0%	0.2 - 2.3%
Net Profit After Tax	1.3%	0.6 - 2.0%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.2%	19.4 - 23.9%
Total Operating Expense to Gross Margin	92.1%	87.3 - 98.2%
Non-People Expense to Net Sales	11.1%	5.8 - 9.8%
Non-People Expense to Gross Margin	36.3%	27.7 - 38.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.4 - 1.0%
Times Interest Earned	3.0X	2.0 - 6.0X
BALANCE SHEET		
Cash	2.9%	0.0 - 4.8%
Accounts & Notes Receivable, Trade(Net)	37.8%	32.4 - 41.5%
Inventory	44.6%	38.4 - 51.8%
Other Current Assets	1.9%	0.4 - 2.4%
Total Current Assets	87.2%	84.0 - 91.8%
All Other Assets	12.8%	8.2 - 16.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.9%	25.7 - 46.8%
Total Long-Term Liabilities	14.9%	3.2 - 23.7%
Total Liabilities	50.8%	39.2 - 64.5%
Total Net Worth	49.2%	35.5 - 60.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.0%	0.3 - 10.6%
Total Assets to Net Worth	2.3X	1.9 - 3.3X
Net Profit After Tax to Total Assets	4.3%	0.1 - 5.4%
Net Sales to Total Assets	2.8X	2.3 - 3.1X
Net Profit After Tax to Net Sales	1.6%	0.0 - 1.7%
Net Profit Before Tax to Net Worth	10.0%	1.4 - 14.6%
Net Profit Before Tax to Total Assets	4.9%	0.2 - 7.6%
EBIT to Total Assets	7.0%	4.2 - 10.1%
SALES ANALYSIS		
Net Sales($000)	$33,145	$20,936 - 46,621
Percent Sales Change from Prior Year	7.6%	-2.9 - 12.5%
Sales Mix:		
Direct Sales	21.6%	12.2 - 24.5%
Warehouse Sales - Counter and Delivery	78.4%	75.5 - 87.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	6.4%	0.0 - 4.0%
Heating & Cooling Supplies & Equipment	2.3%	0.0 - 0.0%
P-V-F (Pipes-Valves-Fittings)	89.0%	86.5 - 100.0%
Other Supplies & Equipment	0.8%	0.0 - 0.0%
Other	1.5%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.3%	17.6 - 23.8%
Gross Margin on Direct Shipments	11.1%	10.1 - 12.8%
Gross Margin on Warehouse Sales	22.7%	19.0 - 27.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.2X	2.7 - 3.3X
Total Debt to Net Worth	129.1%	93.7 - 229.4%
Current Debt to Net Worth	104.0%	70.4 - 209.3%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	1.9X	1.5 - 2.3X
Current Assets Minus Inventory/Curr Debt	0.9X	0.6 - 1.1X
Net Sales to Working Capital	6.9X	5.6 - 9.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.3%	0.3 - 3.2%
Net Profit Before Tax plus Depreciation to Total Assets	5.9%	0.9 - 9.5%
Working Capital to Total Assets	40.1%	28.9 - 51.3%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	3.8	3.0 - 4.4
Average Invoice Size	$421	$322 - 717
Average Billing Line	$125.81	$73.36 - 157.27

AMERICAN SUPPLY ASSOCIATION
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P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$309,009	$265,909 - 331,453
Gross Margin Per Employee	$69,471	$54,210 - 72,435
Average Compensation Per Employee	$34,949	$29,266 - 37,785
Average Fringe Benefits Per Employee	$6,278	$4,543 - 8,403
Compensation & Fringes Per Employee	$39,598	$34,565 - 45,444
Payroll to Net Sales	11.2%	8.3 - 12.6%
Fringe Benefits to Net Sales	1.7%	1.5 - 2.3%
Payroll & Fringes to Net Sales	12.7%	9.6 - 14.6%
Payroll to Gross Margin	50.4%	45.7 - 53.0%
Fringe Benefits to Gross Margin	9.2%	8.1 - 11.3%
Payroll & Fringes to Gross Margin	58.2%	54.1 - 65.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.0X	2.7 - 4.6X
% of Whse Sales from Non-Stock Items	17.8%	4.5 - 32.5%
Cost of In-Stock Whse Sales/Ave Inventory	3.1X	1.8 - 3.2X
No. of Days Average Inventory Carried	92 Days	80 - 135 Days
Total Cost of Goods Sold to Ave Inventory	5.1X	3.6 - 6.0X
Whse Gross Margin Return on Ave Inventory	106%	95 - 141%
Turn & Earn Profitability Index	84%	67 - 116%
Percent of Firms on LIFO	85.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	54 Days	48 - 59 Days
Gross Margin Return on Receivables	158%	117 - 190%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	57.8%	51.0 - 59.4%
31-60 Days Outstanding	24.0%	22.3 - 29.2%
61-90 Days Outstanding	7.9%	6.7 - 9.8%
Over 90 Days Outstanding	10.3%	4.8 - 12.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.7%	76.2 - 82.4%
Gross Margin	22.3%	17.6 - 23.8%
Operating Expenses:		
Selling Expenses	6.9%	4.8 - 7.6%
Delivery Expenses	1.5%	0.7 - 2.1%
Warehouse Expenses	3.1%	2.0 - 3.6%
General & Administrative Expenses	7.2%	6.2 - 8.1%
Occupancy Expenses	1.6%	1.2 - 1.8%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	20.3%	15.9 - 21.8%
Net Operating Profit	2.1%	0.5 - 3.4%
Non-Operating Income	1.5%	0.5 - 1.6%
Non-Operating Expenses	1.8%	1.3 - 2.1%
Net Profit Before Tax	1.8%	0.0 - 2.6%
Net Profit After Tax	1.6%	0.0 - 1.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.3%	15.9 - 21.8%
Total Operating Expense to Gross Margin	91.1%	85.8 - 97.1%
Non-People Expense to Net Sales	6.7%	4.8 - 7.2%
Non-People Expense to Gross Margin	30.2%	25.8 - 36.7%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.7 - 1.6%
Times Interest Earned	3.2X	1.0 - 4.7X
BALANCE SHEET		
Cash	3.6%	0.7 - 3.2%
Accounts & Notes Receivable, Trade(Net)	37.1%	32.0 - 46.4%
Inventory	47.6%	40.4 - 54.4%
Other Current Assets	1.3%	0.4 - 1.1%
Total Current Assets	89.6%	87.8 - 93.1%
All Other Assets	10.4%	6.9 - 12.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	49.5%	34.8 - 60.9%
Total Long-Term Liabilities	9.9%	4.0 - 14.5%
Total Liabilities	59.4%	48.3 - 69.4%
Total Net Worth	40.6%	30.6 - 51.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	12.7%	10.0 - 18.9%
Total Assets to Net Worth	1.9X	1.7 - 2.7X
Net Profit After Tax to Total Assets	6.4%	4.5 - 8.5%
Net Sales to Total Assets	3.1X	2.5 - 3.4X
Net Profit After Tax to Net Sales	1.8%	1.6 - 2.9%
Net Profit Before Tax to Net Worth	17.0%	12.6 - 29.7%
Net Profit Before Tax to Total Assets	9.1%	6.5 - 10.7%
EBIT to Total Assets	11.1%	8.7 - 13.4%
SALES ANALYSIS		
Net Sales($000)	$11,645	$6,978 - 34,811
Percent Sales Change from Prior Year	9.2%	-1.9 - 15.4%
Sales Mix:		
Direct Sales	16.1%	9.3 - 19.6%
Warehouse Sales - Counter and Delivery	83.9%	80.4 - 90.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	6.5%	0.0 - 5.0%
Heating & Cooling Supplies & Equipment	1.4%	0.0 - 0.0%
P-V-F (Pipes-Valves-Fittings)	87.9%	86.0 - 100.0%
Other Supplies & Equipment	2.0%	0.0 - 0.8%
Other	2.2%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.7%	20.3 - 27.0%
Gross Margin on Direct Shipments	11.1%	9.9 - 12.8%
Gross Margin on Warehouse Sales	24.4%	20.3 - 27.6%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.5X	2.9 - 3.8X
Total Debt to Net Worth	93.7%	67.2 - 167.6%
Current Debt to Net Worth	65.2%	31.8 - 103.2%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.6X	2.0 - 4.3X
Current Assets Minus Inventory/Curr Debt	1.3X	1.0 - 2.1X
Net Sales to Working Capital	6.9X	4.9 - 8.0X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.6%	2.7 - 4.1%
Net Profit Before Tax plus Depreciation to Total Assets	10.3%	8.4 - 12.3%
Working Capital to Total Assets	51.9%	41.3 - 60.3%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	3.9	3.6 - 4.5
Average Invoice Size	$269	$234 - 322
Average Billing Line	$64.07	$54.61 - 77.10

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$289,322	$262,569 - 304,839
Gross Margin Per Employee	$70,427	$63,976 - 75,891
Average Compensation Per Employee	$35,213	$27,255 - 37,586
Average Fringe Benefits Per Employee	$6,469	$4,447 - 8,496
Compensation & Fringes Per Employee	$40,415	$36,193 - 44,526
Payroll to Net Sales	11.5%	8.7 - 12.7%
Fringe Benefits to Net Sales	2.1%	1.5 - 2.6%
Payroll & Fringes to Net Sales	14.1%	10.3 - 15.2%
Payroll to Gross Margin	48.2%	42.7 - 51.3%
Fringe Benefits to Gross Margin	9.4%	7.8 - 11.7%
Payroll & Fringes to Gross Margin	57.9%	53.3 - 62.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.6X	3.8 - 5.7X
% of Whse Sales from Non-Stock Items	28.5%	
Cost of In-Stock Whse Sales/Ave Inventory	3.6X	
No. of Days Average Inventory Carried	80 Days	64 - 96 Days
Total Cost of Goods Sold to Ave Inventory	5.9X	4.4 - 6.4X
Whse Gross Margin Return on Ave Inventory	162%	111 - 186%
Turn & Earn Profitability Index	126%	87 - 141%
Percent of Firms on LIFO	90.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	40 - 51 Days
Gross Margin Return on Receivables	201%	173 - 205%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.7%	55.1 - 77.8%
31-60 Days Outstanding	22.5%	18.7 - 27.0%
61-90 Days Outstanding	7.7%	3.2 - 10.7%
Over 90 Days Outstanding	5.1%	1.5 - 8.7%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.3%	73.1 - 79.7%
Gross Margin	22.7%	20.3 - 27.0%
Operating Expenses:		
Selling Expenses	7.4%	6.8 - 8.6%
Delivery Expenses	1.8%	0.7 - 2.0%
Warehouse Expenses	2.5%	1.8 - 3.0%
General & Administrative Expenses	5.9%	4.8 - 6.8%
Occupancy Expenses	1.5%	1.1 - 1.7%
Other Operating Expenses	0.3%	0.0 - 0.0%
Total Operating Expenses	19.3%	16.3 - 22.3%
Net Operating Profit	3.4%	3.0 - 4.0%
Non-Operating Income	1.1%	0.4 - 1.2%
Non-Operating Expenses	1.6%	1.3 - 2.0%
Net Profit Before Tax	2.9%	1.6 - 3.0%
Net Profit After Tax	1.8%	1.6 - 2.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.3%	16.3 - 22.3%
Total Operating Expense to Gross Margin	84.8%	82.0 - 88.8%
Non-People Expense to Net Sales	5.8%	4.6 - 6.8%
Non-People Expense to Gross Margin	26.3%	23.5 - 29.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 0.9%
Times Interest Earned	5.0X	3.0 - 17.0X
BALANCE SHEET		
Cash	6.6%	1.0 - 11.5%
Accounts & Notes Receivable, Trade(Net)	34.8%	28.1 - 39.9%
Inventory	44.8%	39.3 - 47.0%
Other Current Assets	1.0%	0.3 - 1.0%
Total Current Assets	87.2%	84.2 - 92.0%
All Other Assets	12.8%	8.0 - 15.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	31.4%	20.1 - 43.5%
Total Long-Term Liabilities	18.2%	5.6 - 26.6%
Total Liabilities	49.6%	40.2 - 62.6%
Total Net Worth	50.4%	37.4 - 59.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Plumbing Supply & PVF Firms

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	3.8%	0.2 - 7.4%
Total Assets to Net Worth	1.7X	1.3 - 2.4X
Net Profit After Tax to Total Assets	2.0%	0.2 - 3.7%
Net Sales to Total Assets	2.5X	2.1 - 2.8X
Net Profit After Tax to Net Sales	0.7%	0.1 - 1.7%
Net Profit Before Tax to Net Worth	5.4%	0.6 - 11.9%
Net Profit Before Tax to Total Assets	2.7%	0.4 - 6.7%
EBIT to Total Assets	5.8%	2.3 - 9.4%
SALES ANALYSIS		
Net Sales($000)	$8,188	$4,763 - 18,189
Percent Sales Change from Prior Year	-1.6%	-7.1 - 5.9%
Sales Mix:		
Direct Sales	11.6%	4.5 - 15.0%
Warehouse Sales - Counter and Delivery	88.4%	85.0 - 95.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	42.8%	38.8 - 50.0%
Heating & Cooling Supplies & Equipment	22.6%	13.0 - 30.3%
P-V-F (Pipes-Valves-Fittings)	24.2%	14.8 - 33.0%
Other Supplies & Equipment	6.5%	0.0 - 10.0%
Other	4.0%	0.0 - 5.3%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.2%	22.4 - 28.4%
Gross Margin on Direct Shipments	12.6%	10.0 - 17.7%
Gross Margin on Warehouse Sales	27.1%	24.3 - 29.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.9X	2.4 - 3.3X
Total Debt to Net Worth	66.2%	33.7 - 137.3%
Current Debt to Net Worth	46.0%	30.0 - 112.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.1X	1.9 - 4.5X
Current Assets Minus Inventory/Curr Debt	1.3X	0.9 - 2.0X
Net Sales to Working Capital	4.5X	3.3 - 6.8X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.6%	1.0 - 3.3%
Net Profit Before Tax plus Depreciation to Total Assets	5.7%	2.5 - 8.4%
Working Capital to Total Assets	53.7%	40.2 - 68.4%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	3.5 - 7.7
Average Invoice Size	$208	$152 - 257
Average Billing Line	$35.79	$26.95 - 52.81

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$220,561	$174,261 - 247,218
Gross Margin Per Employee	$56,608	$47,218 - 63,567
Average Compensation Per Employee	$28,777	$24,715 - 32,189
Average Fringe Benefits Per Employee	$5,563	$4,524 - 6,623
Compensation & Fringes Per Employee	$34,797	$30,115 - 39,261
Payroll to Net Sales	13.3%	11.4 - 14.7%
Fringe Benefits to Net Sales	2.7%	2.2 - 3.3%
Payroll & Fringes to Net Sales	16.3%	14.3 - 18.3%
Payroll to Gross Margin	52.4%	47.0 - 57.1%
Fringe Benefits to Gross Margin	10.6%	8.4 - 12.5%
Payroll & Fringes to Gross Margin	62.9%	56.9 - 68.2%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.6X	3.0 - 4.3X
% of Whse Sales from Non-Stock Items	13.0%	5.0 - 25.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.3 - 3.5X
No. of Days Average Inventory Carried	102 Days	85 - 121 Days
Total Cost of Goods Sold to Ave Inventory	3.8X	3.2 - 4.8X
Whse Gross Margin Return on Ave Inventory	134%	103 - 178%
Turn & Earn Profitability Index	97%	76 - 128%
Percent of Firms on LIFO	38.5%	
ACCOUNTS RECEIVABLE		
Average Collection Period	50 Days	44 - 64 Days
Gross Margin Return on Receivables	167%	151 - 195%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	57.1%	47.5 - 66.8%
31-60 Days Outstanding	17.9%	14.1 - 20.9%
61-90 Days Outstanding	9.1%	6.3 - 12.6%
Over 90 Days Outstanding	15.8%	6.5 - 22.7%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$766	$251 - 830
31-60 Days Outstanding	$857	$550 - 2,314
61-90 Days Outstanding	$872	$438 - 2,135
Over 90 Days Outstanding	$1,760	$295 - 2,824
Total	$812	$280 - 1,172
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	62.8%	53.3 - 74.0%
31-60 Days Outstanding	17.9%	12.5 - 19.3%
61-90 Days Outstanding	7.7%	6.2 - 8.6%
Over 90 Days Outstanding	11.6%	6.1 - 10.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.8%	71.6 - 77.6%
Gross Margin	26.2%	22.4 - 28.4%
Operating Expenses:		
Selling Expenses	7.3%	6.0 - 9.1%
Delivery Expenses	2.2%	1.6 - 2.7%
Warehouse Expenses	2.7%	1.8 - 3.4%
General & Administrative Expenses	9.8%	7.4 - 11.9%
Occupancy Expenses	2.6%	1.4 - 3.5%
Other Operating Expenses	0.5%	0.0 - 0.2%
Total Operating Expenses	25.0%	21.7 - 26.5%
Net Operating Profit	1.1%	-0.5 - 2.7%
Non-Operating Income	1.8%	1.1 - 2.8%
Non-Operating Expenses	1.8%	1.1 - 2.5%
Net Profit Before Tax	1.1%	0.1 - 1.9%
Net Profit After Tax	0.7%	0.1 - 1.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.0%	21.7 - 26.5%
Total Operating Expense to Gross Margin	96.4%	90.2 - 101.9%
Non-People Expense to Net Sales	8.7%	6.9 - 9.9%
Non-People Expense to Gross Margin	33.7%	30.1 - 38.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.2 - 1.4%
Times Interest Earned	3.0X	1.0 - 9.0X
BALANCE SHEET		
Cash	5.5%	0.5 - 6.9%
Accounts & Notes Receivable, Trade(Net)	32.4%	24.7 - 39.7%
Inventory	45.2%	36.3 - 56.0%
Other Current Assets	3.3%	0.5 - 2.8%
Total Current Assets	86.3%	81.5 - 93.3%
All Other Assets	13.7%	6.7 - 18.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.1%	18.1 - 46.6%
Total Long-Term Liabilities	13.4%	0.4 - 16.2%
Total Liabilities	46.5%	25.5 - 60.4%
Total Net Worth	53.5%	39.6 - 74.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	4.3%	-1.7 - 7.4%
Total Assets to Net Worth	2.4X	1.4 - 2.9X
Net Profit After Tax to Total Assets	1.3%	-0.7 - 3.3%
Net Sales to Total Assets	2.4X	2.0 - 2.7X
Net Profit After Tax to Net Sales	0.5%	-0.4 - 1.4%
Net Profit Before Tax to Net Worth	5.0%	-1.5 - 10.1%
Net Profit Before Tax to Total Assets	2.1%	0.1 - 5.0%
EBIT to Total Assets	6.4%	1.0 - 8.0%
SALES ANALYSIS		
Net Sales($000)	$3,804	$2,470 - 4,362
Percent Sales Change from Prior Year	-6.0%	-11.5 - 5.8%
Sales Mix:		
Direct Sales	4.7%	0.0 - 7.0%
Warehouse Sales - Counter and Delivery	95.3%	93.0 - 100.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	45.5%	40.0 - 50.0%
Heating & Cooling Supplies & Equipment	23.5%	15.0 - 30.0%
P-V-F (Pipes-Valves-Fittings)	23.2%	10.0 - 33.0%
Other Supplies & Equipment	7.2%	5.0 - 10.0%
Other	0.6%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	31.2%	
Gross Margin on Direct Shipments	INSUFFICIENT DATA	
Gross Margin on Warehouse Sales	31.9%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.9X	2.2 - 3.0X
Total Debt to Net Worth	134.7%	36.4 - 188.4%
Current Debt to Net Worth	64.9%	32.7 - 135.9%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.8X	1.9 - 3.8X
Current Assets Minus Inventory/Curr Debt	1.2X	1.0 - 1.5X
Net Sales to Working Capital	5.3X	2.9 - 7.0X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.8%	0.5 - 4.2%
Net Profit Before Tax plus Depreciation to Total Assets	5.4%	2.0 - 9.5%
Working Capital to Total Assets	50.7%	42.5 - 59.8%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	
Average Invoice Size	$201	
Average Billing Line	$30.35	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$168,791	$145,089 - 228,567
Gross Margin Per Employee	$56,066	$43,893 - 63,036
Average Compensation Per Employee	$28,501	$19,665 - 33,416
Average Fringe Benefits Per Employee	$5,167	$4,394 - 7,058
Compensation & Fringes Per Employee	$33,286	$24,345 - 41,195
Payroll to Net Sales	14.7%	12.3 - 16.2%
Fringe Benefits to Net Sales	3.1%	2.4 - 4.6%
Payroll & Fringes to Net Sales	18.4%	14.7 - 21.7%
Payroll to Gross Margin	51.6%	47.9 - 56.7%
Fringe Benefits to Gross Margin	10.6%	8.5 - 15.1%
Payroll & Fringes to Gross Margin	67.0%	55.2 - 71.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.5X	2.9 - 3.7X
% of Whse Sales from Non-Stock Items	15.0%	
Cost of In-Stock Whse Sales/Ave Inventory	INSUFFICIENT DATA	
No. of Days Average Inventory Carried	106 Days	98 - 125 Days
Total Cost of Goods Sold to Ave Inventory	3.2X	2.9 - 4.0X
Whse Gross Margin Return on Ave Inventory	136%	96 - 197%
Turn & Earn Profitability Index	114%	
Percent of Firms on LIFO	25.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	45 - 53 Days
Gross Margin Return on Receivables	INSUFFICIENT DATA	
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	54.8%	48.7 - 60.9%
31-60 Days Outstanding	15.5%	13.4 - 17.0%
61-90 Days Outstanding	9.0%	6.3 - 11.9%
Over 90 Days Outstanding	20.7%	10.2 - 26.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	
Cost of Goods Sold	68.8%	
Gross Margin	31.2%	
Operating Expenses:		
Selling Expenses	7.1%	
Delivery Expenses	2.8%	
Warehouse Expenses	2.2%	
General & Administrative Expenses	15.0%	
Occupancy Expenses	3.3%	
Other Operating Expenses	0.3%	
Total Operating Expenses	30.7%	
Net Operating Profit	0.6%	
Non-Operating Income	2.9%	
Non-Operating Expenses	2.5%	
Net Profit Before Tax	0.9%	
Net Profit After Tax	0.5%	-0.4 - 1.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	30.7%	
Total Operating Expense to Gross Margin	100.1%	
Non-People Expense to Net Sales	10.3%	
Non-People Expense to Gross Margin	34.4%	
INTEREST EXPENSE		
Interest Expense to Net Sales	1.3%	0.7 - 1.6%
Times Interest Earned	2.0X	1.0 - 7.0X
BALANCE SHEET		
Cash	5.3%	0.3 - 4.9%
Accounts & Notes Receivable, Trade(Net)	28.7%	22.5 - 31.1%
Inventory	47.0%	38.4 - 59.0%
Other Current Assets	5.9%	1.6 - 5.9%
Total Current Assets	87.0%	82.5 - 92.6%
All Other Assets	13.0%	7.5 - 17.5%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.2%	18.8 - 46.8%
Total Long-Term Liabilities	23.0%	1.0 - 37.2%
Total Liabilities	58.2%	28.3 - 69.4%
Total Net Worth	41.8%	30.6 - 71.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES $5,000,000 TO $9,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	0.6%	-0.8 - 3.3%
Total Assets to Net Worth	1.5X	1.3 - 2.0X
Net Profit After Tax to Total Assets	0.5%	-0.5 - 2.3%
Net Sales to Total Assets	2.5X	2.2 - 2.7X
Net Profit After Tax to Net Sales	0.2%	-0.2 - 0.7%
Net Profit Before Tax to Net Worth	0.8%	-0.2 - 5.4%
Net Profit Before Tax to Total Assets	0.7%	-0.1 - 2.3%
EBIT to Total Assets	2.6%	0.5 - 5.4%
SALES ANALYSIS		
Net Sales($000)	$6,533	$5,461 - 7,471
Percent Sales Change from Prior Year	-1.1%	-4.7 - 2.6%
Sales Mix:		
Direct Sales	13.0%	4.3 - 17.4%
Warehouse Sales - Counter and Delivery	87.1%	82.6 - 95.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	42.2%	39.1 - 48.0%
Heating & Cooling Supplies & Equipment	18.4%	10.0 - 30.0%
P-V-F (Pipes-Valves-Fittings)	21.8%	15.0 - 30.0%
Other Supplies & Equipment	11.3%	5.0 - 14.0%
Other	6.3%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.3%	21.9 - 28.0%
Gross Margin on Direct Shipments	16.8%	12.8 - 25.7%
Gross Margin on Warehouse Sales	26.6%	23.6 - 28.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.9X	2.4 - 3.3X
Total Debt to Net Worth	48.5%	29.0 - 100.5%
Current Debt to Net Worth	47.7%	18.7 - 79.6%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.8X	2.0 - 5.7X
Current Assets Minus Inventory/Curr Debt	1.4X	0.9 - 2.5X
Net Sales to Working Capital	4.1X	3.2 - 5.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.5%	0.6 - 1.7%
Net Profit Before Tax plus Depreciation to Total Assets	3.2%	1.4 - 4.8%
Working Capital to Total Assets	60.4%	45.9 - 72.8%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.5	5.4 - 8.5
Average Invoice Size	$196	$149 - 227
Average Billing Line	$28.42	$25.48 - 30.33

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES $5,000,000 TO $9,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$176,644	$165,552 - 207,028
Gross Margin Per Employee	$47,265	$37,994 - 56,608
Average Compensation Per Employee	$27,597	$24,201 - 28,777
Average Fringe Benefits Per Employee	$5,064	$4,311 - 6,660
Compensation & Fringes Per Employee	$31,325	$28,925 - 35,771
Payroll to Net Sales	13.9%	12.9 - 15.4%
Fringe Benefits to Net Sales	2.6%	2.4 - 3.4%
Payroll & Fringes to Net Sales	17.3%	15.6 - 18.4%
Payroll to Gross Margin	56.2%	51.1 - 59.9%
Fringe Benefits to Gross Margin	11.4%	10.5 - 13.2%
Payroll & Fringes to Gross Margin	67.1%	59.4 - 75.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.7X	2.8 - 4.3X
% of Whse Sales from Non-Stock Items	25.0%	8.0 - 25.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.6X	2.1 - 3.4X
No. of Days Average Inventory Carried	100 Days	86 - 131 Days
Total Cost of Goods Sold to Ave Inventory	3.7X	3.2 - 4.6X
Whse Gross Margin Return on Ave Inventory	123%	93 - 154%
Turn & Earn Profitability Index	97%	75 - 119%
Percent of Firms on LIFO	42.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	42 - 59 Days
Gross Margin Return on Receivables	176%	150 - 198%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.1%	54.1 - 71.2%
31-60 Days Outstanding	15.3%	13.5 - 19.0%
61-90 Days Outstanding	8.7%	5.2 - 12.8%
Over 90 Days Outstanding	12.9%	4.9 - 16.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$804	$764 - 850
31-60 Days Outstanding	$1,490	$802 - 2,170
61-90 Days Outstanding	$1,249	$752 - 1,989
Over 90 Days Outstanding	$2,650	$1,406 - 3,191
Total	$929	$842 - 1,172
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	68.7%	63.4 - 75.5%
31-60 Days Outstanding	12.9%	9.7 - 16.6%
61-90 Days Outstanding	8.0%	7.0 - 9.2%
Over 90 Days Outstanding	10.3%	6.1 - 8.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES $5,000,000 TO $9,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.7%	72.1 - 78.1%
Gross Margin	25.3%	21.9 - 28.0%
Operating Expenses:		
Selling Expenses	7.5%	5.3 - 9.7%
Delivery Expenses	2.1%	1.4 - 2.8%
Warehouse Expenses	2.5%	1.7 - 3.1%
General & Administrative Expenses	10.3%	9.4 - 11.9%
Occupancy Expenses	2.0%	1.0 - 2.5%
Other Operating Expenses	0.6%	0.0 - 0.7%
Total Operating Expenses	24.9%	22.8 - 26.8%
Net Operating Profit	0.4%	-1.0 - 1.6%
Non-Operating Income	1.7%	1.1 - 3.0%
Non-Operating Expenses	1.9%	1.0 - 3.2%
Net Profit Before Tax	0.3%	-0.3 - 1.3%
Net Profit After Tax	0.2%	-0.2 - 0.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.9%	22.8 - 26.8%
Total Operating Expense to Gross Margin	99.2%	94.1 - 104.3%
Non-People Expense to Net Sales	8.2%	7.3 - 8.7%
Non-People Expense to Gross Margin	32.4%	30.0 - 36.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.4%	0.1 - 0.7%
Times Interest Earned	3.0X	1.0 - 8.0X
BALANCE SHEET		
Cash	5.8%	0.5 - 6.7%
Accounts & Notes Receivable, Trade(Net)	31.5%	24.0 - 41.5%
Inventory	48.1%	37.9 - 57.7%
Other Current Assets	2.4%	0.2 - 2.2%
Total Current Assets	87.8%	82.8 - 94.5%
All Other Assets	12.2%	5.5 - 17.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	28.7%	15.1 - 39.5%
Total Long-Term Liabilities	10.7%	0.0 - 10.6%
Total Liabilities	39.4%	22.5 - 50.1%
Total Net Worth	60.6%	49.9 - 77.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES OVER $9,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	4.7%	2.9 - 10.8%
Total Assets to Net Worth	1.7X	1.4 - 2.3X
Net Profit After Tax to Total Assets	2.8%	1.0 - 7.4%
Net Sales to Total Assets	2.6X	2.3 - 2.9X
Net Profit After Tax to Net Sales	1.1%	0.3 - 2.8%
Net Profit Before Tax to Net Worth	8.0%	3.6 - 16.0%
Net Profit Before Tax to Total Assets	4.7%	1.3 - 9.7%
EBIT to Total Assets	6.7%	5.5 - 12.3%
SALES ANALYSIS		
Net Sales($000)	$19,280	$15,326 - 30,918
Percent Sales Change from Prior Year	-0.8%	-6.9 - 7.1%
Sales Mix:		
Direct Sales	13.5%	5.3 - 15.0%
Warehouse Sales - Counter and Delivery	86.5%	85.0 - 94.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	41.2%	35.0 - 48.6%
Heating & Cooling Supplies & Equipment	24.0%	20.0 - 34.5%
P-V-F (Pipes-Valves-Fittings)	26.0%	16.2 - 34.5%
Other Supplies & Equipment	3.6%	0.0 - 5.0%
Other	5.1%	0.0 - 8.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.1%	22.5 - 27.9%
Gross Margin on Direct Shipments	11.4%	10.0 - 12.8%
Gross Margin on Warehouse Sales	26.7%	24.2 - 29.0%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.6 - 3.4X
Total Debt to Net Worth	66.2%	35.7 - 128.7%
Current Debt to Net Worth	42.1%	25.6 - 105.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.1X	1.7 - 4.3X
Current Assets Minus Inventory/Curr Debt	1.3X	0.9 - 2.3X
Net Sales to Working Capital	4.6X	3.5 - 7.9X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.2%	1.6 - 4.0%
Net Profit Before Tax plus Depreciation to Total Assets	7.3%	3.9 - 8.9%
Working Capital to Total Assets	51.4%	34.8 - 67.0%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	3.9	3.5 - 6.5
Average Invoice Size	$213	$161 - 279
Average Billing Line	$45.96	$37.80 - 61.71

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES OVER $9,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$234,812	$220,614 - 259,753
Gross Margin Per Employee	$60,244	$52,138 - 64,972
Average Compensation Per Employee	$30,181	$26,400 - 32,534
Average Fringe Benefits Per Employee	$5,593	$4,963 - 6,374
Compensation & Fringes Per Employee	$35,072	$32,040 - 39,406
Payroll to Net Sales	12.7%	11.0 - 14.0%
Fringe Benefits to Net Sales	2.5%	2.0 - 2.8%
Payroll & Fringes to Net Sales	15.6%	13.0 - 16.3%
Payroll to Gross Margin	50.7%	45.5 - 54.3%
Fringe Benefits to Gross Margin	9.7%	8.1 - 11.3%
Payroll & Fringes to Gross Margin	61.2%	56.8 - 63.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.8X	3.2 - 4.3X
% of Whse Sales from Non-Stock Items	11.5%	6.9 - 23.8%
Cost of In-Stock Whse Sales/Ave Inventory	3.2X	2.8 - 3.5X
No. of Days Average Inventory Carried	96 Days	84 - 113 Days
Total Cost of Goods Sold to Ave Inventory	4.5X	3.7 - 5.0X
Whse Gross Margin Return on Ave Inventory	133%	107 - 172%
Turn & Earn Profitability Index	91%	77 - 113%
Percent of Firms on LIFO	45.5%	
ACCOUNTS RECEIVABLE		
Average Collection Period	53 Days	44 - 64 Days
Gross Margin Return on Receivables	158%	152 - 182%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	55.4%	46.0 - 66.8%
31-60 Days Outstanding	20.3%	15.7 - 23.2%
61-90 Days Outstanding	9.4%	6.6 - 11.6%
Over 90 Days Outstanding	14.9%	6.5 - 23.5%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		$281
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

PLUMBING & P-V-F FIRMS -- SALES OVER $9,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.9%	72.1 - 77.5%
Gross Margin	25.1%	22.5 - 27.9%
Operating Expenses:		
Selling Expenses	7.2%	6.3 - 8.2%
Delivery Expenses	2.1%	1.5 - 2.6%
Warehouse Expenses	2.9%	2.1 - 3.5%
General & Administrative Expenses	7.9%	6.9 - 9.5%
Occupancy Expenses	2.7%	1.5 - 4.0%
Other Operating Expenses	0.5%	0.0 - 0.0%
Total Operating Expenses	23.3%	21.3 - 25.7%
Net Operating Profit	1.8%	-0.3 - 3.1%
Non-Operating Income	1.7%	1.3 - 2.8%
Non-Operating Expenses	1.6%	1.0 - 1.9%
Net Profit Before Tax	1.8%	0.5 - 2.7%
Net Profit After Tax	1.1%	0.3 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.3%	21.3 - 25.7%
Total Operating Expense to Gross Margin	93.7%	87.6 - 101.1%
Non-People Expense to Net Sales	8.5%	6.7 - 9.9%
Non-People Expense to Gross Margin	34.2%	31.2 - 38.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.2 - 1.3%
Times Interest Earned	5.0X	2.0 - 11.0X
BALANCE SHEET		
Cash	5.5%	0.7 - 7.1%
Accounts & Notes Receivable, Trade(Net)	35.3%	27.4 - 40.3%
Inventory	42.5%	35.0 - 52.4%
Other Current Assets	1.9%	0.4 - 2.1%
Total Current Assets	85.2%	80.3 - 91.5%
All Other Assets	14.8%	8.5 - 19.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.9%	18.7 - 48.1%
Total Long-Term Liabilities	8.5%	0.8 - 10.4%
Total Liabilities	42.4%	26.3 - 56.3%
Total Net Worth	57.6%	43.7 - 73.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT PLUMBING & P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.4%	4.7 - 15.6%
Total Assets to Net Worth	1.6X	1.3 - 2.1X
Net Profit After Tax to Total Assets	4.4%	3.0 - 8.3%
Net Sales to Total Assets	2.4X	2.0 - 2.7X
Net Profit After Tax to Net Sales	1.9%	1.2 - 4.4%
Net Profit Before Tax to Net Worth	12.1%	7.9 - 16.6%
Net Profit Before Tax to Total Assets	6.8%	4.7 - 13.3%
EBIT to Total Assets	8.0%	6.3 - 13.9%
SALES ANALYSIS		
Net Sales($000)	$15,344	$5,064 - 26,038
Percent Sales Change from Prior Year	2.7%	-4.7 - 7.8%
Sales Mix:		
Direct Sales	14.3%	4.8 - 15.7%
Warehouse Sales - Counter and Delivery	85.7%	84.3 - 95.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	41.9%	35.0 - 50.0%
Heating & Cooling Supplies & Equipment	19.9%	7.5 - 30.5%
P-V-F (Pipes-Valves-Fittings)	27.9%	17.5 - 35.0%
Other Supplies & Equipment	6.5%	0.0 - 10.0%
Other	3.9%	0.0 - 7.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.7%	22.5 - 28.5%
Gross Margin on Direct Shipments	12.4%	10.8 - 14.9%
Gross Margin on Warehouse Sales	27.1%	24.3 - 31.6%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.8X	2.4 - 3.0X
Total Debt to Net Worth	58.5%	28.2 - 113.5%
Current Debt to Net Worth	39.5%	22.8 - 70.3%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.6X	2.4 - 5.3X
Current Assets Minus Inventory/Curr Debt	1.4X	1.1 - 2.6X
Net Sales to Working Capital	4.1X	2.9 - 4.8X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	5.0%	2.3 - 7.7%
Net Profit Before Tax plus Depreciation to Total Assets	10.4%	6.1 - 14.5%
Working Capital to Total Assets	61.0%	52.7 - 72.9%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	3.8	3.3 - 7.9
Average Invoice Size	$225	$155 - 304
Average Billing Line	$44.39	$33.79 - 62.67

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT PLUMBING & P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$222,816	$206,127 - 254,714
Gross Margin Per Employee	$58,936	$48,629 - 68,732
Average Compensation Per Employee	$27,661	$24,914 - 31,937
Average Fringe Benefits Per Employee	$5,526	$4,646 - 7,567
Compensation & Fringes Per Employee	$33,873	$29,985 - 39,889
Payroll to Net Sales	12.7%	11.0 - 14.7%
Fringe Benefits to Net Sales	2.8%	2.3 - 3.6%
Payroll & Fringes to Net Sales	16.1%	13.4 - 17.3%
Payroll to Gross Margin	50.4%	41.7 - 52.7%
Fringe Benefits to Gross Margin	10.4%	8.2 - 12.5%
Payroll & Fringes to Gross Margin	59.4%	55.7 - 65.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.5X	3.1 - 3.9X
% of Whse Sales from Non-Stock Items	10.0%	6.5 - 24.5%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.5 - 3.5X
No. of Days Average Inventory Carried	103 Days	94 - 119 Days
Total Cost of Goods Sold to Ave Inventory	3.7X	3.2 - 4.5X
Whse Gross Margin Return on Ave Inventory	123%	105 - 141%
Turn & Earn Profitability Index	83%	76 - 102%
Percent of Firms on LIFO	46.2%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	41 - 60 Days
Gross Margin Return on Receivables	170%	151 - 201%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	60.0%	52.6 - 68.7%
31-60 Days Outstanding	17.7%	14.1 - 22.4%
61-90 Days Outstanding	8.7%	6.0 - 11.4%
Over 90 Days Outstanding	13.6%	6.5 - 16.1%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total	$281	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT PLUMBING & P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.3%	71.5 - 77.5%
Gross Margin	25.7%	22.5 - 28.5%
Operating Expenses:		
Selling Expenses	7.0%	5.9 - 8.0%
Delivery Expenses	1.9%	1.4 - 2.2%
Warehouse Expenses	3.0%	2.3 - 3.4%
General & Administrative Expenses	8.5%	6.9 - 10.0%
Occupancy Expenses	1.9%	1.4 - 2.1%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	22.4%	21.0 - 23.4%
Net Operating Profit	3.2%	1.3 - 4.9%
Non-Operating Income	0.8%	1.1 - 2.3%
Non-Operating Expenses	1.3%	1.0 - 1.6%
Net Profit Before Tax	2.8%	1.7 - 6.1%
Net Profit After Tax	1.9%	1.2 - 4.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.4%	21.0 - 23.4%
Total Operating Expense to Gross Margin	88.1%	81.3 - 94.3%
Non-People Expense to Net Sales	7.7%	6.7 - 8.9%
Non-People Expense to Gross Margin	30.3%	29.2 - 32.9%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.4%	0.2 - 0.9%
Times Interest Earned	7.0X	4.0 - 15.0X
BALANCE SHEET		
Cash	8.3%	1.0 - 15.3%
Accounts & Notes Receivable, Trade(Net)	29.5%	24.7 - 34.3%
Inventory	45.9%	38.2 - 54.9%
Other Current Assets	3.7%	0.5 - 2.5%
Total Current Assets	87.4%	81.5 - 94.5%
All Other Assets	12.6%	5.5 - 18.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	28.8%	15.8 - 38.7%
Total Long-Term Liabilities	10.9%	0.1 - 13.9%
Total Liabilities	39.7%	22.2 - 54.2%
Total Net Worth	60.3%	45.8 - 77.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HVAC & Other Firms

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.5%	3.1 - 13.9%
Total Assets to Net Worth	2.0X	1.5 - 3.2X
Net Profit After Tax to Total Assets	2.9%	0.8 - 6.0%
Net Sales to Total Assets	2.5X	2.1 - 3.2X
Net Profit After Tax to Net Sales	1.3%	0.3 - 2.4%
Net Profit Before Tax to Net Worth	9.6%	4.1 - 22.1%
Net Profit Before Tax to Total Assets	4.7%	1.0 - 9.9%
EBIT to Total Assets	7.9%	5.2 - 11.9%
SALES ANALYSIS		
Net Sales($000)	$8,905	$5,175 - 19,783
Percent Sales Change from Prior Year	0.3%	-8.0 - 8.0%
Sales Mix:		
Direct Sales	9.2%	2.0 - 12.0%
Warehouse Sales - Counter and Delivery	90.8%	88.0 - 98.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	29.1%	18.3 - 40.0%
Heating & Cooling Supplies & Equipment	29.3%	7.3 - 49.3%
P-V-F (Pipes-Valves-Fittings)	6.5%	0.0 - 10.0%
Other Supplies & Equipment	12.2%	0.0 - 11.3%
Other	22.8%	0.0 - 40.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.9%	21.8 - 28.0%
Gross Margin on Direct Shipments	13.0%	11.0 - 18.9%
Gross Margin on Warehouse Sales	25.4%	23.3 - 28.6%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.5 - 3.7X
Total Debt to Net Worth	101.3%	47.7 - 215.7%
Current Debt to Net Worth	64.6%	38.3 - 155.2%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.6X	1.7 - 3.4X
Current Assets Minus Inventory/Curr Debt	1.0X	0.8 - 1.3X
Net Sales to Working Capital	4.7X	3.6 - 8.0X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.3%	1.3 - 4.9%
Net Profit Before Tax plus Depreciation to Total Assets	8.3%	3.6 - 13.6%
Working Capital to Total Assets	50.0%	34.4 - 62.9%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.8 - 5.3
Average Invoice Size	$194	$129 - 274
Average Billing Line	$37.86	$31.83 - 52.33

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$212,333	$186,170 - 259,397
Gross Margin Per Employee	$51,954	$46,156 - 59,869
Average Compensation Per Employee	$25,477	$23,442 - 28,842
Average Fringe Benefits Per Employee	$4,537	$3,776 - 5,934
Compensation & Fringes Per Employee	$30,035	$27,187 - 33,405
Payroll to Net Sales	11.5%	9.8 - 13.4%
Fringe Benefits to Net Sales	2.1%	1.7 - 2.7%
Payroll & Fringes to Net Sales	13.7%	11.9 - 15.4%
Payroll to Gross Margin	47.9%	43.2 - 54.4%
Fringe Benefits to Gross Margin	8.8%	7.5 - 10.5%
Payroll & Fringes to Gross Margin	56.9%	51.5 - 65.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.4X	2.9 - 4.0X
% of Whse Sales from Non-Stock Items	10.0%	5.3 - 17.5%
Cost of In-Stock Whse Sales/Ave Inventory	2.8X	2.4 - 3.4X
No. of Days Average Inventory Carried	107 Days	91 - 128 Days
Total Cost of Goods Sold to Ave Inventory	3.8X	3.0 - 5.2X
Whse Gross Margin Return on Ave Inventory	115%	96 - 145%
Turn & Earn Profitability Index	82%	71 - 100%
Percent of Firms on LIFO	52.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	36 - 49 Days
Gross Margin Return on Receivables	207%	191 - 253%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.8%	55.1 - 76.5%
31-60 Days Outstanding	16.1%	11.7 - 19.8%
61-90 Days Outstanding	7.3%	4.4 - 9.5%
Over 90 Days Outstanding	10.8%	4.4 - 13.8%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$270	$194 - 790
31-60 Days Outstanding	$253	$177 - 766
61-90 Days Outstanding	$270	$208 - 593
Over 90 Days Outstanding	$265	$188 - 890
Total	$283	$202 - 916
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	73.4%	66.8 - 81.1%
31-60 Days Outstanding	13.9%	10.3 - 17.0%
61-90 Days Outstanding	6.0%	4.4 - 6.6%
Over 90 Days Outstanding	6.7%	4.6 - 8.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.1%	72.1 - 78.2%
Gross Margin	24.9%	21.8 - 28.0%
Operating Expenses:		
Selling Expenses	6.6%	4.7 - 7.8%
Delivery Expenses	1.7%	1.2 - 2.0%
Warehouse Expenses	2.9%	2.0 - 3.5%
General & Administrative Expenses	9.2%	6.8 - 12.5%
Occupancy Expenses	2.0%	1.2 - 2.7%
Other Operating Expenses	0.3%	0.0 - 0.0%
Total Operating Expenses	22.6%	20.7 - 26.0%
Net Operating Profit	2.3%	0.4 - 3.8%
Non-Operating Income	2.0%	1.3 - 3.0%
Non-Operating Expenses	2.4%	1.2 - 2.6%
Net Profit Before Tax	1.9%	1.0 - 3.9%
Net Profit After Tax	1.3%	0.3 - 2.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.6%	20.7 - 26.0%
Total Operating Expense to Gross Margin	90.8%	85.3 - 98.1%
Non-People Expense to Net Sales	8.3%	6.8 - 10.1%
Non-People Expense to Gross Margin	32.6%	25.4 - 40.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.3 - 1.6%
Times Interest Earned	3.0X	1.0 - 10.0X
BALANCE SHEET		
Cash	4.5%	0.6 - 3.5%
Accounts & Notes Receivable, Trade(Net)	29.4%	23.1 - 36.8%
Inventory	51.1%	43.0 - 57.2%
Other Current Assets	1.2%	0.3 - 2.5%
Total Current Assets	86.2%	80.8 - 92.4%
All Other Assets	13.8%	7.6 - 19.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.4%	24.2 - 49.7%
Total Long-Term Liabilities	12.7%	2.5 - 18.9%
Total Liabilities	50.0%	32.3 - 68.3%
Total Net Worth	50.0%	31.7 - 67.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES UNDER $6,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.9%	-2.0 - 13.3%
Total Assets to Net Worth	1.6X	1.4 - 3.2X
Net Profit After Tax to Total Assets	3.8%	-0.2 - 6.8%
Net Sales to Total Assets	2.3X	2.0 - 3.0X
Net Profit After Tax to Net Sales	1.3%	-0.1 - 3.5%
Net Profit Before Tax to Net Worth	8.4%	-1.7 - 20.7%
Net Profit Before Tax to Total Assets	5.1%	-0.2 - 9.2%
EBIT to Total Assets	7.7%	5.0 - 11.9%
SALES ANALYSIS		
Net Sales($000)	$3,398	$2,439 - 4,635
Percent Sales Change from Prior Year	-2.5%	-14.6 - 7.1%
Sales Mix:		
Direct Sales	6.1%	1.3 - 11.0%
Warehouse Sales - Counter and Delivery	93.9%	89.0 - 98.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	34.2%	27.3 - 46.3%
Heating & Cooling Supplies & Equipment	41.7%	31.5 - 53.5%
P-V-F (Pipes-Valves-Fittings)	3.5%	0.0 - 5.0%
Other Supplies & Equipment	5.8%	0.0 - 6.3%
Other	14.9%	0.0 - 24.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.6%	23.1 - 29.5%
Gross Margin on Direct Shipments	12.1%	10.3 - 18.5%
Gross Margin on Warehouse Sales	27.8%	23.5 - 29.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.6X	2.3 - 3.4X
Total Debt to Net Worth	61.8%	43.9 - 224.5%
Current Debt to Net Worth	48.2%	38.3 - 123.3%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.1X	2.5 - 3.4X
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.3X
Net Sales to Working Capital	4.4X	3.5 - 4.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.8%	1.8 - 4.7%
Net Profit Before Tax plus Depreciation to Total Assets	7.4%	4.0 - 12.9%
Working Capital to Total Assets	59.7%	56.3 - 65.8%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.2 - 5.5
Average Invoice Size	$169	$91 - 211
Average Billing Line	$34.28	$29.36 - 41.85

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES UNDER $6,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$203,088	$162,607 - 235,010
Gross Margin Per Employee	$52,081	$41,779 - 60,753
Average Compensation Per Employee	$25,742	$22,406 - 27,802
Average Fringe Benefits Per Employee	$4,034	$3,445 - 5,960
Compensation & Fringes Per Employee	$29,589	$25,738 - 33,959
Payroll to Net Sales	12.1%	10.8 - 16.3%
Fringe Benefits to Net Sales	2.4%	1.7 - 3.5%
Payroll & Fringes to Net Sales	18.1%	12.7 - 19.8%
Payroll to Gross Margin	49.3%	43.6 - 55.2%
Fringe Benefits to Gross Margin	8.5%	7.1 - 11.4%
Payroll & Fringes to Gross Margin	61.9%	52.1 - 66.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.2X	3.0 - 3.6X
% of Whse Sales from Non-Stock Items	10.0%	6.3 - 14.3%
Cost of In-Stock Whse Sales/Ave Inventory	2.8X	2.4 - 3.2X
No. of Days Average Inventory Carried	114 Days	102 - 121 Days
Total Cost of Goods Sold to Ave Inventory	3.3X	3.0 - 3.8X
Whse Gross Margin Return on Ave Inventory	119%	111 - 141%
Turn & Earn Profitability Index	87%	82 - 101%
Percent of Firms on LIFO	35.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	41 Days	34 - 63 Days
Gross Margin Return on Receivables	230%	209 - 262%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.0%	52.9 - 82.5%
31-60 Days Outstanding	16.5%	10.3 - 21.5%
61-90 Days Outstanding	6.1%	2.4 - 8.6%
Over 90 Days Outstanding	11.4%	5.7 - 12.6%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$614	
31-60 Days Outstanding	$390	
61-90 Days Outstanding	$347	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	$533	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	72.7%	
31-60 Days Outstanding	12.7%	
61-90 Days Outstanding	6.6%	
Over 90 Days Outstanding	8.0%	
Total	100.0%	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES UNDER $6,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.4%	70.5 - 76.9%
Gross Margin	26.6%	23.1 - 29.5%
Operating Expenses:		
Selling Expenses	6.5%	4.4 - 7.6%
Delivery Expenses	2.0%	1.7 - 2.4%
Warehouse Expenses	3.2%	2.0 - 3.9%
General & Administrative Expenses	11.1%	8.2 - 14.0%
Occupancy Expenses	1.8%	1.3 - 2.4%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	24.5%	21.2 - 27.7%
Net Operating Profit	2.1%	0.4 - 2.4%
Non-Operating Income	2.1%	1.3 - 3.0%
Non-Operating Expenses	2.0%	1.2 - 2.5%
Net Profit Before Tax	2.2%	1.4 - 3.8%
Net Profit After Tax	1.3%	-0.1 - 3.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.5%	21.2 - 27.7%
Total Operating Expense to Gross Margin	93.1%	91.6 - 98.1%
Non-People Expense to Net Sales	9.4%	7.1 - 10.1%
Non-People Expense to Gross Margin	36.1%	29.4 - 43.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.3 - 1.9%
Times Interest Earned	2.0X	1.0 - 18.0X
BALANCE SHEET		
Cash	4.7%	0.9 - 4.6%
Accounts & Notes Receivable, Trade(Net)	27.3%	20.4 - 34.4%
Inventory	57.1%	50.5 - 65.2%
Other Current Assets	0.5%	0.2 - 5.3%
Total Current Assets	89.6%	86.5 - 94.1%
All Other Assets	10.4%	6.0 - 13.5%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	32.2%	26.9 - 37.3%
Total Long-Term Liabilities	14.7%	2.3 - 23.7%
Total Liabilities	46.9%	30.5 - 69.2%
Total Net Worth	53.1%	30.8 - 69.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES $6,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	10.4%	4.3 - 17.6%
Total Assets to Net Worth	2.0X	1.5 - 2.7X
Net Profit After Tax to Total Assets	4.9%	2.5 - 6.8%
Net Sales to Total Assets	2.8X	2.2 - 3.2X
Net Profit After Tax to Net Sales	1.7%	1.1 - 2.7%
Net Profit Before Tax to Net Worth	16.1%	4.7 - 22.7%
Net Profit Before Tax to Total Assets	6.8%	2.7 - 11.0%
EBIT to Total Assets	8.0%	4.9 - 14.5%
SALES ANALYSIS		
Net Sales($000)	$8,681	$6,795 - 9,211
Percent Sales Change from Prior Year	3.0%	-0.6 - 13.8%
Sales Mix:		
Direct Sales	7.0%	1.6 - 11.1%
Warehouse Sales - Counter and Delivery	93.0%	88.9 - 98.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	26.7%	18.0 - 36.3%
Heating & Cooling Supplies & Equipment	22.2%	8.8 - 31.3%
P-V-F (Pipes-Valves-Fittings)	10.3%	0.0 - 13.3%
Other Supplies & Equipment	23.0%	6.5 - 40.3%
Other	17.9%	0.0 - 24.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.2%	23.2 - 31.2%
Gross Margin on Direct Shipments	16.1%	13.0 - 21.0%
Gross Margin on Warehouse Sales	27.4%	23.4 - 32.6%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.2X	2.6 - 4.0X
Total Debt to Net Worth	97.6%	48.4 - 170.0%
Current Debt to Net Worth	70.0%	34.0 - 155.3%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.3X	1.5 - 3.9X
Current Assets Minus Inventory/Curr Debt	1.0X	0.8 - 1.3X
Net Sales to Working Capital	5.9X	3.5 - 8.8X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.9%	1.5 - 6.4%
Net Profit Before Tax plus Depreciation to Total Assets	9.6%	4.0 - 15.8%
Working Capital to Total Assets	48.9%	34.9 - 61.1%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.7	3.6 - 7.3
Average Invoice Size	$187	$124 - 275
Average Billing Line	$33.57	$31.35 - 48.90

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES $6,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$208,196	$187,254 - 233,093
Gross Margin Per Employee	$49,928	$45,562 - 57,377
Average Compensation Per Employee	$25,477	$23,910 - 27,930
Average Fringe Benefits Per Employee	$5,014	$3,832 - 5,909
Compensation & Fringes Per Employee	$29,720	$28,215 - 32,469
Payroll to Net Sales	12.3%	11.1 - 13.9%
Fringe Benefits to Net Sales	2.3%	1.7 - 2.9%
Payroll & Fringes to Net Sales	14.2%	13.6 - 15.6%
Payroll to Gross Margin	51.8%	45.0 - 55.0%
Fringe Benefits to Gross Margin	9.7%	7.7 - 10.3%
Payroll & Fringes to Gross Margin	57.0%	55.0 - 63.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.0X	2.7 - 5.3X
% of Whse Sales from Non-Stock Items	8.0%	0.4 - 18.1%
Cost of In-Stock Whse Sales/Ave Inventory	3.2X	
No. of Days Average Inventory Carried	92 Days	69 - 134 Days
Total Cost of Goods Sold to Ave Inventory	4.6X	3.2 - 5.8X
Whse Gross Margin Return on Ave Inventory	148%	107 - 161%
Turn & Earn Profitability Index	98%	73 - 124%
Percent of Firms on LIFO	33.3%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	37 - 52 Days
Gross Margin Return on Receivables	207%	191 - 259%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.5%	48.4 - 73.2%
31-60 Days Outstanding	15.9%	15.1 - 18.0%
61-90 Days Outstanding	8.6%	5.6 - 13.1%
Over 90 Days Outstanding	11.0%	2.8 - 18.7%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	$903	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES $6,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.8%	68.8 - 76.8%
Gross Margin	27.2%	23.2 - 31.2%
Operating Expenses:		
Selling Expenses	7.1%	5.4 - 7.9%
Delivery Expenses	1.9%	1.2 - 2.2%
Warehouse Expenses	3.3%	1.5 - 4.1%
General & Administrative Expenses	9.4%	7.5 - 11.3%
Occupancy Expenses	2.2%	1.8 - 3.0%
Other Operating Expenses	0.4%	0.0 - 0.5%
Total Operating Expenses	24.2%	21.0 - 26.6%
Net Operating Profit	2.9%	-0.0 - 4.9%
Non-Operating Income	1.3%	1.3 - 2.7%
Non-Operating Expenses	1.8%	0.9 - 2.4%
Net Profit Before Tax	2.4%	1.2 - 5.8%
Net Profit After Tax	1.7%	1.1 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.2%	21.0 - 26.6%
Total Operating Expense to Gross Margin	90.1%	83.5 - 100.1%
Non-People Expense to Net Sales	8.1%	6.9 - 9.2%
Non-People Expense to Gross Margin	30.4%	25.3 - 34.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.3 - 1.1%
Times Interest Earned	6.5X	2.0 - 12.5X
BALANCE SHEET		
Cash	4.6%	0.6 - 2.7%
Accounts & Notes Receivable, Trade(Net)	31.5%	22.7 - 38.4%
Inventory	46.0%	40.2 - 54.5%
Other Current Assets	1.6%	0.3 - 1.4%
Total Current Assets	83.7%	80.1 - 86.5%
All Other Assets	16.4%	13.5 - 19.9%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.0%	23.8 - 55.2%
Total Long-Term Liabilities	10.2%	3.5 - 17.2%
Total Liabilities	48.2%	32.6 - 63.0%
Total Net Worth	51.8%	37.0 - 67.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	5.2%	2.9 - 11.3%
Total Assets to Net Worth	2.2X	1.7 - 3.1X
Net Profit After Tax to Total Assets	2.2%	0.8 - 4.4%
Net Sales to Total Assets	2.5X	2.2 - 3.1X
Net Profit After Tax to Net Sales	0.9%	0.3 - 1.6%
Net Profit Before Tax to Net Worth	9.3%	4.4 - 19.8%
Net Profit Before Tax to Total Assets	4.0%	1.0 - 7.2%
EBIT to Total Assets	8.4%	5.5 - 9.7%
SALES ANALYSIS		
Net Sales($000)	$29,233	$18,728 - 42,750
Percent Sales Change from Prior Year	-1.6%	-7.0 - 6.8%
Sales Mix:		
Direct Sales	12.3%	5.0 - 16.7%
Warehouse Sales - Counter and Delivery	87.7%	83.3 - 95.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	27.1%	15.8 - 39.3%
Heating & Cooling Supplies & Equipment	25.0%	4.7 - 37.8%
P-V-F (Pipes-Valves-Fittings)	6.0%	0.0 - 7.0%
Other Supplies & Equipment	8.8%	0.0 - 10.3%
Other	33.2%	9.5 - 51.3%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.2%	20.5 - 24.8%
Gross Margin on Direct Shipments	12.5%	10.8 - 15.2%
Gross Margin on Warehouse Sales	25.2%	22.3 - 25.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.6 - 3.6X
Total Debt to Net Worth	117.0%	70.7 - 209.5%
Current Debt to Net Worth	79.3%	44.9 - 169.9%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.3X	1.6 - 3.4X
Current Assets Minus Inventory/Curr Debt	0.8X	0.7 - 1.4X
Net Sales to Working Capital	5.3X	4.1 - 11.6X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.2%	1.3 - 4.2%
Net Profit Before Tax plus Depreciation to Total Assets	8.0%	3.7 - 11.0%
Working Capital to Total Assets	44.0%	31.1 - 58.3%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.8	3.6 - 5.0
Average Invoice Size	$227	$157 - 292
Average Billing Line	$45.49	$37.86 - 64.50

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$238,379	$215,289 - 291,127
Gross Margin Per Employee	$54,198	$49,381 - 66,803
Average Compensation Per Employee	$25,466	$22,465 - 29,875
Average Fringe Benefits Per Employee	$4,537	$3,980 - 5,952
Compensation & Fringes Per Employee	$32,205	$26,749 - 33,625
Payroll to Net Sales	10.2%	9.0 - 12.1%
Fringe Benefits to Net Sales	1.9%	1.7 - 2.3%
Payroll & Fringes to Net Sales	12.1%	10.7 - 14.0%
Payroll to Gross Margin	45.4%	42.6 - 51.5%
Fringe Benefits to Gross Margin	8.5%	7.4 - 10.6%
Payroll & Fringes to Gross Margin	55.3%	51.1 - 63.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.4X	2.9 - 4.0X
% of Whse Sales from Non-Stock Items	13.8%	6.9 - 18.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.8X	2.4 - 3.1X
No. of Days Average Inventory Carried	107 Days	91 - 128 Days
Total Cost of Goods Sold to Ave Inventory	4.1X	3.1 - 5.2X
Whse Gross Margin Return on Ave Inventory	105%	88 - 116%
Turn & Earn Profitability Index	76%	67 - 86%
Percent of Firms on LIFO	86.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	39 - 45 Days
Gross Margin Return on Receivables	200%	184 - 212%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.7%	61.5 - 72.2%
31-60 Days Outstanding	16.0%	9.0 - 19.7%
61-90 Days Outstanding	7.3%	5.1 - 9.5%
Over 90 Days Outstanding	10.1%	5.2 - 12.9%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$194	
31-60 Days Outstanding	$247	
61-90 Days Outstanding	$241	
Over 90 Days Outstanding	$265	
Total	$201	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	71.4%	
31-60 Days Outstanding	16.3%	
61-90 Days Outstanding	5.4%	
Over 90 Days Outstanding	6.9%	
Total	100.0%	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HVAC & OTHER FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.8%	75.2 - 79.5%
Gross Margin	22.2%	20.5 - 24.8%
Operating Expenses:		
Selling Expenses	6.2%	4.8 - 8.0%
Delivery Expenses	1.3%	1.2 - 1.6%
Warehouse Expenses	2.4%	2.1 - 3.1%
General & Administrative Expenses	8.0%	5.5 - 9.1%
Occupancy Expenses	1.9%	1.1 - 2.6%
Other Operating Expenses	0.3%	0.0 - 0.0%
Total Operating Expenses	20.2%	20.0 - 22.5%
Net Operating Profit	2.0%	1.8 - 3.0%
Non-Operating Income	1.8%	1.5 - 3.0%
Non-Operating Expenses	2.2%	1.5 - 2.5%
Net Profit Before Tax	1.6%	0.5 - 3.6%
Net Profit After Tax	0.9%	0.3 - 1.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.2%	20.0 - 22.5%
Total Operating Expense to Gross Margin	89.9%	85.8 - 92.2%
Non-People Expense to Net Sales	7.7%	6.4 - 10.1%
Non-People Expense to Gross Margin	31.8%	26.3 - 40.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.8 - 1.5%
Times Interest Earned	2.0X	1.0 - 4.0X
BALANCE SHEET		
Cash	4.3%	0.2 - 3.4%
Accounts & Notes Receivable, Trade(Net)	29.5%	23.8 - 36.4%
Inventory	50.1%	42.5 - 55.7%
Other Current Assets	1.4%	0.3 - 2.5%
Total Current Assets	85.3%	80.8 - 92.3%
All Other Assets	14.7%	7.7 - 19.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	41.3%	25.0 - 55.3%
Total Long-Term Liabilities	13.0%	2.7 - 20.2%
Total Liabilities	54.3%	41.3 - 67.5%
Total Net Worth	45.7%	32.5 - 58.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	13.2%	7.7 - 21.7%
Total Assets to Net Worth	1.6X	1.4 - 2.4X
Net Profit After Tax to Total Assets	6.0%	5.1 - 9.9%
Net Sales to Total Assets	2.7X	2.3 - 3.5X
Net Profit After Tax to Net Sales	2.5%	1.7 - 3.9%
Net Profit Before Tax to Net Worth	21.8%	10.1 - 26.2%
Net Profit Before Tax to Total Assets	10.0%	6.8 - 14.1%
EBIT to Total Assets	12.3%	8.3 - 15.7%
SALES ANALYSIS		
Net Sales($000)	$8,206	$4,635 - 12,206
Percent Sales Change from Prior Year	2.5%	-4.5 - 9.9%
Sales Mix:		
Direct Sales	8.7%	1.5 - 12.9%
Warehouse Sales - Counter and Delivery	91.3%	87.1 - 98.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	28.9%	17.5 - 40.0%
Heating & Cooling Supplies & Equipment	27.6%	8.5 - 40.0%
P-V-F (Pipes-Valves-Fittings)	8.6%	0.0 - 10.0%
Other Supplies & Equipment	12.2%	0.8 - 10.8%
Other	22.6%	0.0 - 33.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.5%	23.3 - 31.0%
Gross Margin on Direct Shipments	12.7%	12.0 - 20.2%
Gross Margin on Warehouse Sales	27.6%	25.1 - 31.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.6 - 4.1X
Total Debt to Net Worth	59.4%	38.6 - 141.0%
Current Debt to Net Worth	45.4%	29.3 - 123.6%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.3X	1.8 - 4.0X
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.7X
Net Sales to Working Capital	4.4X	3.4 - 6.1X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	5.5%	4.1 - 7.4%
Net Profit Before Tax plus Depreciation to Total Assets	13.9%	9.7 - 16.4%
Working Capital to Total Assets	55.8%	47.5 - 66.0%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.5	3.5 - 6.3
Average Invoice Size	$194	$119 - 295
Average Billing Line	$35.91	$32.12 - 48.40

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$217,253	$199,566 - 276,232
Gross Margin Per Employee	$55,961	$49,305 - 63,898
Average Compensation Per Employee	$25,817	$23,987 - 29,335
Average Fringe Benefits Per Employee	$5,165	$4,032 - 6,464
Compensation & Fringes Per Employee	$31,733	$28,279 - 36,435
Payroll to Net Sales	11.1%	10.0 - 13.3%
Fringe Benefits to Net Sales	2.3%	1.9 - 2.9%
Payroll & Fringes to Net Sales	13.6%	12.0 - 17.2%
Payroll to Gross Margin	47.5%	40.8 - 52.5%
Fringe Benefits to Gross Margin	9.7%	7.8 - 10.6%
Payroll & Fringes to Gross Margin	56.9%	51.3 - 62.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.4X	2.6 - 4.4X
% of Whse Sales from Non-Stock Items	10.0%	6.3 - 22.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.6X	2.3 - 3.4X
No. of Days Average Inventory Carried	109 Days	84 - 141 Days
Total Cost of Goods Sold to Ave Inventory	3.9X	3.1 - 5.7X
Whse Gross Margin Return on Ave Inventory	123%	101 - 149%
Turn & Earn Profitability Index	94%	73 - 109%
Percent of Firms on LIFO	50.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	33 - 51 Days
Gross Margin Return on Receivables	221%	200 - 260%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.9%	49.7 - 74.5%
31-60 Days Outstanding	17.0%	9.3 - 20.6%
61-90 Days Outstanding	8.3%	5.3 - 11.5%
Over 90 Days Outstanding	10.8%	3.7 - 16.8%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$480	
31-60 Days Outstanding	$559	
61-90 Days Outstanding	$411	
Over 90 Days Outstanding	$399	
Total	$492	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	73.3%	
31-60 Days Outstanding	12.5%	
61-90 Days Outstanding	6.6%	
Over 90 Days Outstanding	7.6%	
Total	100.0%	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

HIGH PROFIT HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.5%	69.0 - 76.7%
Gross Margin	26.5%	23.3 - 31.0%
Operating Expenses:		
Selling Expenses	6.9%	4.6 - 9.0%
Delivery Expenses	1.6%	1.0 - 2.2%
Warehouse Expenses	2.5%	1.6 - 3.7%
General & Administrative Expenses	9.1%	7.0 - 11.4%
Occupancy Expenses	2.2%	1.4 - 2.8%
Other Operating Expenses	0.4%	0.0 - 0.0%
Total Operating Expenses	22.7%	20.2 - 27.8%
Net Operating Profit	3.8%	2.2 - 5.3%
Non-Operating Income	1.5%	1.3 - 2.9%
Non-Operating Expenses	1.6%	0.8 - 1.8%
Net Profit Before Tax	3.7%	2.8 - 6.8%
Net Profit After Tax	2.5%	1.7 - 3.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.7%	20.2 - 27.8%
Total Operating Expense to Gross Margin	84.9%	78.4 - 91.8%
Non-People Expense to Net Sales	7.9%	6.8 - 9.2%
Non-People Expense to Gross Margin	27.8%	25.3 - 33.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.2 - 0.8%
Times Interest Earned	10.0X	4.0 - 30.0X
BALANCE SHEET		
Cash	6.6%	0.9 - 4.4%
Accounts & Notes Receivable, Trade(Net)	30.3%	23.7 - 37.5%
Inventory	48.9%	40.2 - 56.4%
Other Current Assets	0.1%	0.1 - 1.0%
Total Current Assets	86.0%	80.3 - 93.2%
All Other Assets	14.0%	6.9 - 19.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.0%	20.4 - 44.5%
Total Long-Term Liabilities	9.4%	1.1 - 15.8%
Total Liabilities	42.5%	27.8 - 58.5%
Total Net Worth	57.5%	41.5 - 72.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

All Reporting Firms

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

ALL RESPONDING FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	5.7%	1.3 - 12.5%
Total Assets to Net Worth	2.0X	1.5 - 3.1X
Net Profit After Tax to Total Assets	2.8%	0.6 - 5.9%
Net Sales to Total Assets	2.7X	2.2 - 3.1X
Net Profit After Tax to Net Sales	1.1%	0.2 - 2.3%
Net Profit Before Tax to Net Worth	8.4%	2.0 - 17.8%
Net Profit Before Tax to Total Assets	4.1%	0.9 - 8.2%
EBIT to Total Assets	6.9%	3.7 - 10.5%
SALES ANALYSIS		
Net Sales($000)	$8,182	$4,740 - 18,418
Percent Sales Change from Prior Year	0.4%	-6.9 - 8.0%
Sales Mix:		
Direct Sales	11.8%	4.1 - 15.8%
Warehouse Sales - Counter and Delivery	88.2%	84.2 - 95.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	53.0%	34.0 - 76.0%
Heating & Cooling Supplies & Equipment	14.7%	0.0 - 25.0%
P-V-F (Pipes-Valves-Fittings)	20.6%	0.0 - 27.0%
Other Supplies & Equipment	4.7%	0.0 - 5.0%
Other	7.0%	0.0 - 6.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.3%	21.5 - 28.0%
Gross Margin on Direct Shipments	12.0%	10.0 - 16.2%
Gross Margin on Warehouse Sales	25.9%	23.3 - 29.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.0X	2.6 - 3.5X
Total Debt to Net Worth	97.7%	45.9 - 212.2%
Current Debt to Net Worth	73.9%	33.8 - 147.4%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.4X	1.8 - 3.8X
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.6X
Net Sales to Working Capital	5.3X	3.7 - 8.2X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.5%	1.1 - 3.9%
Net Profit Before Tax plus Depreciation to Total Assets	6.3%	2.4 - 9.6%
Working Capital to Total Assets	48.7%	34.6 - 63.4%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.8 - 6.0
Average Invoice Size	$201	$141 - 267
Average Billing Line	$37.83	$27.09 - 55.35

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

ALL RESPONDING FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$226,583	$187,568 - 265,197
Gross Margin Per Employee	$55,367	$47,277 - 65,408
Average Compensation Per Employee	$27,398	$23,987 - 32,233
Average Fringe Benefits Per Employee	$5,143	$4,145 - 6,657
Compensation & Fringes Per Employee	$32,810	$28,091 - 39,207
Payroll to Net Sales	12.4%	10.8 - 14.7%
Fringe Benefits to Net Sales	2.4%	1.8 - 3.1%
Payroll & Fringes to Net Sales	14.7%	12.7 - 17.8%
Payroll to Gross Margin	50.3%	45.5 - 55.5%
Fringe Benefits to Gross Margin	9.7%	8.0 - 11.3%
Payroll & Fringes to Gross Margin	59.6%	54.5 - 66.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.6X	2.9 - 4.5X
% of Whse Sales from Non-Stock Items	11.5%	5.0 - 20.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.0X	2.3 - 3.6X
No. of Days Average Inventory Carried	100 Days	82 - 126 Days
Total Cost of Goods Sold to Ave Inventory	4.1X	3.2 - 5.3X
Whse Gross Margin Return on Ave Inventory	123%	102 - 161%
Turn & Earn Profitability Index	89%	74 - 115%
Percent of Firms on LIFO	54.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	41 - 55 Days
Gross Margin Return on Receivables	185%	153 - 221%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	61.8%	52.6 - 71.0%
31-60 Days Outstanding	18.3%	14.1 - 22.1%
61-90 Days Outstanding	8.0%	5.2 - 10.6%
Over 90 Days Outstanding	11.9%	4.7 - 17.1%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$652	$242 - 1,033
31-60 Days Outstanding	$612	$228 - 1,730
61-90 Days Outstanding	$561	$213 - 1,836
Over 90 Days Outstanding	$615	$177 - 2,011
Total	$682	$242 - 1,458
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	66.0%	56.4 - 75.5%
31-60 Days Outstanding	16.5%	10.6 - 19.2%
61-90 Days Outstanding	7.1%	5.0 - 9.1%
Over 90 Days Outstanding	10.5%	4.9 - 13.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

ALL RESPONDING FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.7%	72.0 - 78.5%
Gross Margin	25.3%	21.5 - 28.0%
Operating Expenses:		
Selling Expenses	6.8%	5.1 - 8.3%
Delivery Expenses	2.1%	1.4 - 2.6%
Warehouse Expenses	2.9%	2.0 - 3.6%
General & Administrative Expenses	9.4%	6.9 - 11.5%
Occupancy Expenses	2.4%	1.4 - 3.1%
Other Operating Expenses	0.4%	0.0 - 0.1%
Total Operating Expenses	24.0%	20.7 - 27.0%
Net Operating Profit	1.3%	-0.3 - 3.0%
Non-Operating Income	2.0%	1.1 - 2.7%
Non-Operating Expenses	1.9%	1.1 - 2.7%
Net Profit Before Tax	1.5%	0.0 - 2.5%
Net Profit After Tax	1.1%	0.2 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.0%	20.7 - 27.0%
Total Operating Expense to Gross Margin	95.0%	88.3 - 101.1%
Non-People Expense to Net Sales	8.7%	6.8 - 9.9%
Non-People Expense to Gross Margin	34.3%	28.9 - 39.0%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.6%
Times Interest Earned	3.0X	1.0 - 8.0X
BALANCE SHEET		
Cash	5.0%	0.5 - 4.9%
Accounts & Notes Receivable, Trade(Net)	31.6%	24.6 - 37.6%
Inventory	47.9%	39.7 - 55.7%
Other Current Assets	2.2%	0.4 - 2.5%
Total Current Assets	86.8%	82.6 - 92.9%
All Other Assets	13.2%	7.1 - 17.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.2%	22.9 - 49.0%
Total Long-Term Liabilities	13.8%	1.4 - 20.3%
Total Liabilities	51.0%	31.8 - 68.8%
Total Net Worth	49.0%	31.3 - 68.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Large Volume Firms

(Those with Sales Volume of $50 Million & Over)

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

ALL FIRMS WITH SALES VOLUME OF $50 MILLION & OVER

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.4%	3.0 - 10.0%
Total Assets to Net Worth	2.5X	1.7 - 3.0X
Net Profit After Tax to Total Assets	2.1%	1.2 - 4.4%
Net Sales to Total Assets	2.5X	2.0 - 2.8X
Net Profit After Tax to Net Sales	1.0%	0.4 - 2.1%
Net Profit Before Tax to Net Worth	12.3%	5.1 - 16.7%
Net Profit Before Tax to Total Assets	3.6%	2.0 - 6.4%
EBIT to Total Assets	6.8%	5.2 - 9.9%
SALES ANALYSIS		
Net Sales($000)	$78,532	$56,927 - 200,615
Percent Sales Change from Prior Year	-0.6%	-5.8 - 7.4%
Sales Mix:		
Direct Sales	16.9%	12.7 - 22.5%
Warehouse Sales - Counter and Delivery	83.1%	77.5 - 87.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	50.5%	31.0 - 70.0%
Heating & Cooling Supplies & Equipment	13.7%	0.0 - 15.0%
P-V-F (Pipes-Valves-Fittings)	17.6%	0.0 - 19.9%
Other Supplies & Equipment	7.7%	0.0 - 9.3%
Other	10.5%	0.0 - 15.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.1%	20.3 - 22.5%
Gross Margin on Direct Shipments	10.0%	9.2 - 12.3%
Gross Margin on Warehouse Sales	24.6%	22.6 - 25.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.3X	2.5 - 3.6X
Total Debt to Net Worth	154.3%	69.3 - 195.5%
Current Debt to Net Worth	82.2%	42.8 - 111.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.0X	1.9 - 4.4X
Current Assets Minus Inventory/Curr Debt	1.4X	0.8 - 1.7X
Net Sales to Working Capital	4.7X	3.3 - 7.0X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.4%	2.0 - 3.1%
Net Profit Before Tax plus Depreciation to Total Assets	5.4%	5.2 - 7.7%
Working Capital to Total Assets	51.5%	36.8 - 63.5%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	3.8	3.7 - 6.0
Average Invoice Size	$235	$199 - 269
Average Billing Line	$44.96	$43.46 - 63.16

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

ALL FIRMS WITH SALES VOLUME OF $50 MILLION & OVER

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$252,265	$236,240 - 326,944
Gross Margin Per Employee	$56,656	$47,674 - 76,935
Average Compensation Per Employee	$28,239	$23,454 - 32,028
Average Fringe Benefits Per Employee	$5,346	$4,372 - 7,042
Compensation & Fringes Per Employee	$33,290	$27,537 - 40,644
Payroll to Net Sales	10.5%	9.0 - 10.8%
Fringe Benefits to Net Sales	1.8%	1.7 - 2.2%
Payroll & Fringes to Net Sales	12.3%	11.0 - 12.7%
Payroll to Gross Margin	46.5%	43.7 - 49.8%
Fringe Benefits to Gross Margin	8.7%	8.0 - 10.6%
Payroll & Fringes to Gross Margin	55.6%	52.0 - 59.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.7X	2.9 - 4.2X
% of Whse Sales from Non-Stock Items	15.0%	12.0 - 17.4%
Cost of In-Stock Whse Sales/Ave Inventory	3.2X	3.0 - 3.8X
No. of Days Average Inventory Carried	98 Days	86 - 126 Days
Total Cost of Goods Sold to Ave Inventory	4.6X	3.6 - 5.2X
Whse Gross Margin Return on Ave Inventory	115%	94 - 129%
Turn & Earn Profitability Index	87%	70 - 105%
Percent of Firms on LIFO	77.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	43 - 61 Days
Gross Margin Return on Receivables	149%	121 - 185%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	62.2%	54.6 - 72.0%
31-60 Days Outstanding	18.8%	15.0 - 22.9%
61-90 Days Outstanding	8.7%	6.0 - 12.1%
Over 90 Days Outstanding	10.4%	6.0 - 12.7%
Total	100.0%	100.0 - 100.0%
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$840	
31-60 Days Outstanding	$838	
61-90 Days Outstanding	$816	
Over 90 Days Outstanding	$833	
Total	$836	
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	58.1%	
31-60 Days Outstanding	21.5%	
61-90 Days Outstanding	8.8%	
Over 90 Days Outstanding	11.6%	
Total	100.0%	

AMERICAN SUPPLY ASSOCIATION
1991 OPERATING PERFORMANCE REPORT

ALL FIRMS WITH SALES VOLUME OF $50 MILLION & OVER

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.9%	77.5 - 79.7%
Gross Margin	22.1%	20.3 - 22.5%
Operating Expenses:		
Selling Expenses	6.4%	5.1 - 7.1%
Delivery Expenses	1.8%	1.6 - 2.0%
Warehouse Expenses	2.8%	2.1 - 3.1%
General & Administrative Expenses	6.8%	4.9 - 8.7%
Occupancy Expenses	1.7%	1.4 - 2.1%
Other Operating Expenses	0.1%	0.0 - 0.0%
Total Operating Expenses	19.6%	17.7 - 21.9%
Net Operating Profit	2.5%	1.1 - 4.5%
Non-Operating Income	1.3%	1.1 - 2.0%
Non-Operating Expenses	2.4%	1.4 - 3.0%
Net Profit Before Tax	1.4%	1.1 - 2.5%
Net Profit After Tax	1.0%	0.4 - 2.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.6%	17.7 - 21.9%
Total Operating Expense to Gross Margin	89.6%	80.5 - 94.5%
Non-People Expense to Net Sales	7.2%	6.2 - 8.4%
Non-People Expense to Gross Margin	33.0%	28.2 - 35.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.2%	0.9 - 1.6%
Times Interest Earned	2.0X	1.0 - 4.0X
BALANCE SHEET		
Cash	1.8%	0.5 - 1.8%
Accounts & Notes Receivable, Trade(Net)	31.3%	25.3 - 34.8%
Inventory	44.1%	37.7 - 50.9%
Other Current Assets	2.5%	0.5 - 3.7%
Total Current Assets	79.6%	73.3 - 85.6%
All Other Assets	20.4%	14.4 - 26.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	29.7%	18.8 - 37.9%
Total Long-Term Liabilities	25.7%	9.9 - 32.5%
Total Liabilities	55.4%	40.9 - 66.2%
Total Net Worth	44.6%	33.9 - 59.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Appendix

Survey Methodology/Demographics

In mid March, 1991, the American Supply Association mailed strictly confidential questionnaires to all PHCP wholesaler members. The primary intent of this survey was to collect detailed financial and operating information from member firms by specific sales volume size and type of product emphasis.

Once the questionnaires were received by Industry Insights, all company identification, if any, was removed and a confidential company identification code assigned. The data was then coded, keyed into the computer and edited by Industry Insights financial analysts for accuracy and consistency. Computer processing was performed on all data to insure statistical validity and to produce the financial and operating ratios contained in this study.

In all, 292 completed and usable questionnaires were received by Industry Insights representing well over 1,000 different wholesaler locations (including headquarters). In particular, the statistical sample consists of the following:

	Number of Reporting Firms
All Reporting Firms	292
By Product Emphasis	
Plumbing Supply Firms (those that obtain more than 50% of sales from plumbing products)	138
Pipe, Valves and Fittings Firms (those with more than 50% of sales from PVF)	37
Plumbing Supply and Pipe, Valves and Fittings Firms (those with more than 50% of sales from plumbing and PVF products combined but less than 50% in each category alone)	56
HVAC and Other Emphasis Firms (those companies that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and PVF products)	61
By Product Emphasis and Sales Volume Size	
Plumbing Supply Firms:	
Sales Under $4,000,000	26
Sales $4,000,000 to $7,000,000	38
Sales $7,000,000 to $12,000,000	30
Sales Over $12,000,000	44

Pipe, Valves and Fittings Firms:
- Sales Under $5,000,000 10
- Sales $5,000,000 to $12,000,000 12
- Sales Over $12,000,000 15

Plumbing Supply & Pipe, Valves and Fittings Firms:
- Sales Under $5,000,000 17
- Sales $5,000,000 to $9,000,000 13
- Sales Over $9,000,000 26

HVAC & Other Emphasis Firms:
- Sales Under $6,000,000 20
- Sales $6,000,000 to $12,000,000 18
- Sales Over $12,000,000 23

Large Volume Firms (those with sales volume of $50 million & over) 17

The statistical information contained in this report is believed to be representative of the companies responding to the survey. All reasonable efforts were taken by Industry Insights, Inc. to assure data comparability within the limitations of accounting reporting procedures. However, the data used in this report are not necessarily based on audited financial statements and the statistical validity of any given number varies depending upon sample sizes and the amount of consistency among responses for that particular ratio. Industry Insights, therefore, makes no representations or warranties with respect to the results of this study and shall not be liable to clients or anyone else for any information inaccuracies, or errors or omissions in contents, regardless of the cause of such inaccuracy, error or omission. In no event shall Industry Insights be liable for any consequential damages.

Fiscal Year-Ends

Among the participants in each year's **Operating Performance Report** it is somewhat interesting to take note of the patterns of fiscal year-end dates. The table below shows that of the firms responding to the 1991 ASA survey, over 63% reported that their fiscal year follows the calendar year. Among the 36.6% of firms having non-December fiscal year ends, the majority fell during either the three months before or the three months after December.

Month of Fiscal Year-Ends

Month	Percentage of Companies
January	6.1%
February	6.5
March	5.0
April	2.9
May	1.1
June	2.2
July	1.1
August	1.4
September	3.6
October	3.2
November	3.6
December	63.4
Total	100.0

Ratio Definitions and Sample Calculations

The primary purpose of this ASA **Operating Performance Report** of the PHCP Wholesaler/Distributor and PVF Distributing industries is to provide a basis for comparing your own firm's performance with industry comparatives. In order to do this, it is necessary to calculate your firm's individual company ratios using the same methods that were used to compute the ratios in this report. These definitions appear on the pages which follow.

To further clarify the computational process, this section of the report also contains a completed survey form and sample calculations for a purely hypothetical company.

Note: Those firms that participated in the ASA survey had the opportunity to receive a confidential Company Performance Report. This report presents a company's own ratios and data already computed in a manner consistent with those appearing in the industry report, which are displayed alongside the appropriate industry comparatives. As a result, participating companies received invaluable information about their own business performance without having to spend time and effort to make the calculations manually.

RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
OVERALL PERFORMANCE			
Net Profit After Tax to Net Worth (%)	(16) Net Profit After Tax ÷ (27) Net Worth	Overall financial performance from the owner's standpoint.	$69,815 ÷ 1,072,599 = 6.5%
Total Assets to Net Worth (x)	(23) Total Assets ÷ (27) Net Worth	Setting policies concerning amount of debt vs. equity in the business.	$2,369,891 ÷ 1,072,599 = 2.2x
Net Profit After Tax to Total Assets (%)	(16) Net Profit After Tax ÷ (23) Total Assets	Overall financial performance from a management standpoint.	$69,815 ÷ 2,369,891 = 2.9%
Net Sales to Total Assets (x)	(1) Net Sales ÷ (23) Total Assets	Asset management--productivity of total asset base.	$5,884,780 ÷ 2,369,891 = 2.5x
Net Profit After Tax to Net Sales (%)	(16) Net Profit After Tax ÷ (1) Net Sales	Margin management (gross margin and expenses)	$69,815 ÷ 5,884,780 = 1.2%
Net Profit Before Tax to Total Assets (%)	(14) Net Profit Before Tax ÷ (23) Total Assets	Overall financial performance from a management standpoint ignoring tax considerations.	$114,136 ÷ 2,369,891 = 4.8%
EBIT* to Total Assets (%)	[(14) Net Profit Before Tax + (48) Interest] ÷ (23) Total Assets	Same as previous ratio but ignores interest expense (leverage, not operations related)	[[$114,136 + 13,092] ÷ 2,369,891 = 5.4%
SALES ANALYSIS			
Percent Sales Change from prior year	[(1) Net Sales - (39) Previous Years Sales] ÷ (39) Previous Years Sales	Indication of company growth. Caution should be used due to inflationary distortions.	[$5,884,780 - 6,002,478] ÷ 6,002,478 = (2.0)
ASSET AND FINANCIAL MANAGEMENT			
Current Asset Turn (x)	(1) Net Sales ÷ (21) Total Current Assets	Asset management - productivity of current asset base.	$5,884,780 ÷ 2,258,150 = 2.6x
Total Debt to Net Worth (%)	(26) Total Liabilities ÷ (27) Net Worth	Measures overall leverage. Use to set policy of how much debt is employed relative to owner's funds.	$1,297,292 ÷ 1,072,599 = 120.9%
Current Debt to Net Worth (%)	(24) Current Liabilities ÷ (27) Net Worth	A measure of the financial mix of the firm.	$520,042 ÷ 1,072,599 = 48.5%
Current Assets to Current Debt (x)	(21) Total Current Assets ÷ (24) Total Current Liabilities	Good overall measures of liquidity. Used to stay within guides set by suppliers and creditors.	$2,258,150 ÷ 520,042 = 4.3x
Current Assets Less Inventory to Current Debt (x)	[(21) Total Current Assets - (19) Inventory] ÷ (24) Total Current Liabilities	Same as above ratio.	[$2,2258,150 - 983,840] ÷ 520,042 = 2.5x
WORKING CAPITAL			
Net Sales to Working Capital (x)	(10) Net Sales ÷ [(30) Current Assets - (33) Current Liabilities]	Measures the number of times working capital is needed to support sales. A low ratio may indicate unprofitable use of working capital while a very high ratio often signifies overtrading.	$6,320,254 ÷ ($2,525,252 - $668,082) = 3.4x

*EBIT refers to "Earnings Before Interest and Taxes."

RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
Net Profit Before Tax plus Depreciation to Net Sales (%)	[(23) Net Profit Before Tax + (85) Depreciation] ÷ (10) Net Sales	Since depreciation is a non-cash expense, this measure adds depreciation back to profits to get a measure of the "real cash return" on sales.	($41,539 + $18,310) ÷ $6,320,254 = 0.9%
Net Profit Before Tax Plus Depreciation to Total Assets (%)	[(23) Net Profit Before Tax + (85) Depreciation] ÷ (32) Total Assets	Since depreciation is a non-cash expense, this measure adds depreciation back to profits to get a measure of the "real cash return" on assets.	($41,539 + $18,310) ÷ $2,645,263 = 2.3%
Working Capital to Total Assets (%)	[(30) Current Assets - (33) Current Liabilities] ÷ (32) Total Assets	A measure of liquidity, this compares net liquid assets to total assets. This measure is one component of the Z score.	($2,525,252 - $668,082) ÷ $2,645,263 = 70.2%
TRANSACTION			
Billing Lines Per Invoice	(45) Annual Billing Lines ÷ (44) Total Number of Invoices	Gives some indication of invoicing efficiency.	171,872 ÷ 21,484 = 8
Average Invoice Size ($)	(1) Net Sales ÷ (44) Total Number of Invoices	Indicates the typical size of an invoice and thus add-on purchase efficiency.	$5,884,780 x .83 ÷ 21,484 = $227.35
Average Billing Line ($)	(1) Net Sales ÷ (45) Annual Billing Lines	Indicates the size of a typical item billed.	$5,884,780 x .83 ÷ 171,872 = $28.42
PERSONNEL PRODUCTIVITY			
Payroll to Net Sales (%)	(29) Total Payroll Expenses ÷ (1) Net Sales	Overall indicator of payroll cost control. Inflation proof. Compare: overtime; vs. industry; by store	$604,313 ÷ 5,884,780 = 10.3%
Fringe Benefits to Net Sales (%)	(30) Total Fringe & Payroll Taxes ÷ (1) Net Sales	Indicates how much of sales are paid in fringe benefits. Compare: overtime; vs. industry.	$234,303 ÷ 5,884,780 = 4.0%
Payroll and Fringes to Net Sales (%)	[(29) Payroll Expense + (30) Fringe Benefits] ÷ (1) Net Sales	Indicator of all personnel related costs.	[$604,313 + 234,303] ÷ 5,884,780 = 14.3%
Payroll to Gross Margin (%)	(29) Total Payroll Expense ÷ (3) Gross Profit on Sales	Indicates the portion of gross profits that are used in payroll costs.	$604,313 ÷ 1,492,481 = 40.5%
Fringe Benefits to Gross Margin (%)	(30) Total Fringe Benefits ÷ (3) Gross Profit on Sales	Same as above but relative to fringe benefits.	$234,303 ÷ 1,492,481 = 15.7%
Payroll and Fringes to Gross Margin (%)	[(29) Total Payroll + (30) Total Fringes] ÷ (3) Gross Profit on Sales	Indicator of all personnel related costs that are used in gross margin production.	[$604,313 + 234,303] ÷ 1,492,481 = 56.2%
INVENTORY MANAGEMENT			
Cost of Warehouse Goods Sold to Average Inventory (x)	[(34) Total Warehouse Sales - (37) Warehouse Gross Profit] ÷ {[(19) Inventory + (40) Previous Years Inventory] ÷ 2}	Measure of inventory productivity. Compare to industry, over time or product categories.	[$5,240,136 - 1,396,217] ÷ [(983,840 + 992,313) ÷ 2] = 3.9x
Number of Days Average Inventory Carried	{[(19) Inventory + (40) Previous Years Inventory] ÷ 2} ÷ {[(34) Warehouse Sales - (37) Warehouse Gross Profit] ÷ 365}	Similar in value to above measure. Shows how quickly inventory is moving.	[($983,840 + 992,313) ÷ 2] ÷ [(5,240,136 - 1,396,217) ÷ 365] = 94 days

RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
Total Cost of Goods Sold to Average Inventory (x)	(2) Total Cost of Goods Sold ÷ [(19) Inventory + (40) Previous Years Inventory] ÷ 2]	Shows how many times you were able to "turn over" your inventory.	$4,392,299 ÷ [(983,840 + 992,313) ÷ 2] = 4.4x
Warehouse Gross Margin Return on Average Inventory (%)	(37) Warehouse Gross Profit ÷ {[(19) Inventory + (40) Previous Years Inventory] ÷ 2}	Overall measure of inventory, profitability and productivity. Combines margin and turnover.	$1,396,217 ÷ [(983,840 + 992,313) ÷ 2] = 141.3%
Turn & Earn Profitability Index (%)	{[(34) Warehouse Sales - (37) Warehouse Gross Profit] ÷ [(19) Inventory + (40) Previous Years Inventory] ÷ 2} x {[(37) Warehouse Gross Profit ÷ (34) Warehouse Sales] x 100}	Another return-on-investment measure which combines margin and turnover.	[($5,240, 136 - 139,217) ÷ (983,840 + 992,313) ÷ 2] x [(1,396,217 ÷ 5,240,136) x 100] = 103.9
ACCOUNTS RECEIVABLE			
Average Collection Period	(18) Accounts & Notes Receivable (net) ÷ [(1) Net Sales x (1.0 - (44) % Cash Sales) ÷ 365]	Measuring effectiveness of various collection policies. Compare to industry and over time.	1,096,734 ÷ [5,884,780 x (1.0 - .17) ÷ 365] = 82 days
Gross Margin Return on Receivables (%)	{[(3) Gross Profit ÷ (1) Net Sales] x 100} x (365 ÷ Average Collection Period)	Indicator of how much gross margin dollars are being generated on your accounts receivables.	[(1,492,481 ÷ 5,884,780) x 100] x [365 ÷ 82] = 112.9%
OPERATING EXPENSE CONTROL			
Total Operating Expense to Net Sales (%)	(10) Total Operating Expenses ÷ (1) Net Sales	Conventional measure used for controlling total operating costs.	$1,323,621 ÷ 5,884,780 = 22.5%
Total Operating Expense to Gross Margin (%)	(10) Total Operating Expense ÷ (3) Gross Profit	A somewhat more specific measure than the one above.	$1,323,621 ÷ 1,492,481 = 88.7%
Non-People Expense to Net Sales (%)	[(10) Total Operating Expense - [(29) Payroll + (30) Fringes]} ÷ (1) Net Sales	A measure for controlling all operating costs except personnel costs.	[$1,323,621 - (604,313 + 234,303)] ÷ 5,884,780 = 8.2%
Non-People Expense to Gross Margin (%)	{(10) Total Operating Expense - [(29) Payroll + (30) Fringes]} ÷ (3) Gross Profit	Same as above but somewhat finer.	[$1,323,621 - (604,313 + 234,303)] ÷ 1,492,481 = 32.5%
INTEREST EXPENSE			
Interest Expense to Net Sales (%)	(46) Interest Expense ÷ (1) Net Sales	An indicator of how much debt financing is costing the firm relative to sales.	$13,092 ÷ 5,884,780 = 0.2%
Times Interest Earned (x)	[(14) Net Profit Before Taxes + (46) Interest] ÷ (46) Interest	Indicates the ease in which your company can pay interest costs out of earnings.	[$114,136 + 13,092] ÷ 13,092 = 9.7x

CONFIDENTIAL

AMERICAN SUPPLY ASSOCIATION

1991

Operating Performance Survey
(Based on 1990 Fiscal Year Results)

This 1991 ASA Operating Performance Survey (of 1990 financial information) promises to be the best ever. By filling out as much information as possible on this survey questionnaire you will be assured of receiving a detailed confidential analysis report of your business. This will contain financial benchmarks alongside your own firm's results to help you identify strengths and weaknesses, and improvement opportunities.

General Information

- This confidential questionnaire is designed to require a minimum of effort on your part. For your convenience, you have the option of filling out this entire form, or just the first two pages (with the last page being optional). Please keep in mind, however, the more information you provide, the more you will get back about your company.
- **If you cannot fill out every line, just do what you can. It is OK to leave blanks.**
- Enter figures from your completed year which ended nearest to December 31, 1990. While full year data is required, **you do not need to wait for audited results from your accountant.**
- Please report round numbers only; show dollar figures without pennies.
- Please report on the basis of your total firm rather than for individual branches.
- Refer to the accompanying **Description of Operating Expense Categories** for help in filling out lines 4 through 10.
- If you need help, call Tom Noon of Industry Insights at 614/442-6626; or, if you prefer, fill out what you can and forward your financial statements to Industry Insights. We will fill out the rest of the form for you to the extent possible.
- **All responses will be kept in strictest confidence by** Industry Insights, Inc.
- Use the enclosed, self-addressed envelope to return this **confidential** form to:

Industry Insights, Inc.
PO Box 20127
Columbus, OH 43220-0127

Early Response Deadline: April 15, 1991
(to receive a quick turnaround **Executive Summary Profile** of your business)

Final Response Deadline: May 20, 1991

Confidential

AMERICAN SUPPLY ASSOCIATION
1991 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1990 Financial Results)

CLASSIFICATION DATA

Ending 12 month period upon which data is based: MM/DD/YY 12 (1)

Number of locations (including headquarters) which are included in the data reflected on this survey form. 1 (2)

Product Sales Mix: Please indicate the percentage of your total company sales accounted for by each type of product (estimate if necessary).

(4) 30 Plumbing Supplies & Equipment, including Plumbing Pipe, Valves & Fittings
(5) ____ Hydronic & Warm Air Heating & Air Conditioning Supplies & Equipment
(6) 30 PVF (Pipe, Valves & Fittings)
(7) 30 Other Supplies & Equipment
(8) 10 Other (please specify)
(9) **100% Total**

SPECIAL OPTION

INDIVIDUAL COMPANY PERFORMANCE REPORT INDUSTRY GROUP COMPARISON PREFERENCES

If you prefer to specificallly designate which industry segments to be included as comparatives in your own firm's individual company performance report (rather than having the computer automatically make the determination), please do so by checking up to 6 boxes from the following groups. Your firm's report will then include the industry comparatives for each box checked.

1 ☐ Plumbing Supply Firms--All Reporting Firms
2 ☐ Plumbing Supply Firms--Sales Under $4 Million
3 ☐ Plumbing Supply Firms--Sales $4-$7 Million
4 ☐ Plumbing Supply Firms--Sales $7-$12 Million
5 ☐ Plumbing Supply Firms--Sales Over $12 Million
6 ☐ Plumbing Supply Firms--High Profit Firms

7 ☐ P-V-F Firms--All Reporting Firms
8 ☐ P-V-F Firms--Sales Under $5 Million
9 ☐ P-V-F Firms--Sales $5-$12 Million
10 ☐ P-V-F Firms--Sales Over $12 Million
11 ☐ P-V-F Firms--High Profit Firms

12 ☒ Plumbing & P-V-F Firms--All Reporting Firms
13 ☒ Plumbing & P-V-F Firms--Sales Under $5 Million
14 ☒ Plumbing & P-V-F Firms--Sales $5-$9 Million
15 ☐ Plumbing & P-V-F Firms--Sales Over $9 Million
16 ☒ Plumbing & P-V-F Firms--High Profit Firms

17 ☐ HVAC Firms--All Reporting Firms
18 ☐ HVAC Firms--Sales Under $6 Million
19 ☐ HVAC Firms--Sales $6-$12 Million
20 ☐ HVAC Firms--Sales Over $12 Million
21 ☐ HVAC Firms--High Profit Firms

22 ☒ All Reporting Firms

23 ☒ Large Volume Firms (those with sales volume of $50 million & over)

BRANCH REPORTING OPTION

Please report your total (consolidated) company operations on this form. This is the primary basis used for compiling the industry results of this survey.

However, if desired, you may also report on a separate form the results of individual branches (or *less than total firm such as a division or region level*) so that you can obtain a separate individual performance report for your branch(es). To do this, please fill out and submit this form for your *Total Firm* and indicate below how many branch forms you wish to be sent. These will be sent to you by Industry Insights and you will then need to fill out and submit them along with a check (payable to the American Supply Association) for $25 for each *Branch* individual performance report profile you desire.

☐ I desire _____ branch survey forms to be sent to me so that I can submit information and receive individual branch performance reports for ~~each one~~ at a cost of $25 each.

NOTE: In order to be eligible to order individual *branch* performance report profiles, you must first participate in the survey as a *Total Firm*.

Indicate below to whom any questions regarding this form should be directed and to whom the final report should be sent. Industry Insights will detach this coupon upon receipt to assure confidentiality.

Company Name _____ Phone # _____

Street Address _____ City _____ State _____ ZIP _____

Person to contact with questions about data SAMPLE COMPANY

Person to whom report should be sent _____ CODE # 500

Participation fee: Please enclose your check, payable to ASA, in the amount of $25. Illinois residents include 8% sales tax.
amounts _____ check # _____ date received _____
Send to: Industry Insights, Inc., PO Box 20127, Columbus, OH 43220-0127.

Line #	INCOME STATEMENT ITEMS	Code #	AMOUNT IN $ (omit cents)
1	Net Sales (Include direct shipments. Deduct claims, returns & allowances but not cash discounts allowed on sales. Exclude sales taxes.)	(10)	$ 5,884,780
2	Cost of Goods Sold (Include inbound transportation costs. Subtract purchase claims, returns and allowances but not cash discounts on purchases) (FIFO basis)*.	(11)	$ 4,392,299
3	Gross Profit on Sales (Line 1 minus Line 2) (FIFO Basis)	(12)	$ 1,492,481
4	Selling Expenses (refer to definition sheet)	(13)	$ 280,652
5	Delivery Expenses (refer to definition sheet)	(14)	$ 177,206
6	Warehouse Expenses (refer to definition sheet)	(15)	$ 197,090
7	General & Administrative Expenses (refer to definition sheet)	(16)	$ 562,999
8	Occupancy Expenses (refer to definition sheet)	(17)	$ 74,396
9	Other Operating Expenses (refer to definition sheet)	(18)	$ 31,278
10	Total Operating Expenses (Sum of Lines 4 through 9)***	(19)	$ 1,323,621
11	Net Operating Profit (Line 3 minus Line 10) (FIFO)	(20)	$ 168,860
12	Non-Operating Income (Include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business)	(21)	$ 34,838
13	Non-Operating Expenses (Include cash discounts allowed on sales, interest paid, losses on sales of fixed assets, and other non-operating expenses or losses not already included above)	(22)	$ 89,562
14	Net Profit Before Taxes (Line 11 plus Line 12 minus Line 13) (FIFO)	(23)	$ 114,136
15	Income Taxes (Federal, State & City)	(24)	$ 45,321
16	Net Profit After Income Taxes (Line 14 minus Line 15) (FIFO)	(25)	$ 69,815

	BALANCE SHEET ITEMS		
17	Cash (Include savings accounts, CD's & other temporary investments)	(26)	$ 159,182
18	Accounts & Notes Receivable, Trade (Net)	(27)	$ 1,096,734
19	Inventory (FIFO Basis)	(28)	$ 983,840
20	Other Current Assets (Such as prepaid items, supplies, etc.)	(29)	$ 18,394
21	Total Current Assets (Sum of Lines 17 thru 20)	(30)	$ 2,258,150
22	All Other Assets (Any Assets not included above)	(31)	$ 111,740
23	Total Assets (Sum of Lines 21 and 22) (Equal to Line 28) (FIFO)	(32)	$ 2,369,891
24	Total Current Liabilities (Due in less than 1 year)	(33)	$ 520,042
25	Total Long-Term Liabilities (Due in more than 1 year)	(34)	$ 777,250
26	Total Liabilities (Sum of Lines 24 and 25)	(35)	$ 1,297,292
27	Total Net Worth (or Owner's Equity) (FIFO)**	(36)	$ 1,072,599
28	Total Liabilities & Net Worth (Sum of Lines 26 and 27) (Equal to Line 23)	(37)	$ 2,369,891

* If on LIFO, subtract your "Annual Additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.

** If on LIFO, add your total LIFO reserve to your book net worth to get your FIFO net worth.

*** If you are a Subchapter S Corporation or a partnership, allocate an appropriate management salary for Owner-Managers to the applicable operating expense category(s) and to total operating expense. This would be an amount similar to what would have to be paid to a non-equity owning manager or managers. Doing this will assure that your numbers will be comparable to corporations paying separate management salaries.

(OPTIONAL INFORMATION PAGE)

LINE #	COMPENSATION DATA	CODE #	AMOUNT IN DOLLARS (omit cents)
29	Total Payroll Expenses (include salaries, bonuses and commissions paid to all employees, including owners; exclude fringe benefits and payroll taxes)	(38)	$ 604,313
30	Total of Fringe Benefit Payments and Payroll Taxes (include Company pension and profit sharing payments plus FICA, Workman's Compensation, Unemployment, Group Insurance, etc., for all employees, including owners)	(39)	$ 234,303
31	Gross Income of the Highest Paid Employee, including Owners (refer to the person's W-2 statement gross income - as from salaries, commissions and bonuses, but excluding fringe benefits and payroll taxes.)	(40)	$ 50,000
32	Gross Income (as above) of the Second Highest Paid Employee (including Owners)	(41)	$ 45,000

WAREHOUSE AND DIRECT SALES DATA			
33	Dollar Amount of Direct (Drop) Shipment Sales	(42)	$ 644,644
34	Dollar Amount of Warehouse Sales (Counter & Delivery)	(45)	$ 5,240,136
35	Total Sales (Sum of Lines 33 and 34) (Equal to Line 1)	(46)	$ 5,844,780
36	Dollar Amount of Gross Profit on Direct (Drop) Shipments	(47)	$ 96,264
37	Dollar Amount of Gross Profit on Warehouse Sales (Report on FIFO Basis)	(48)	$ 1,396,217
38	Total FIFO Gross Profit (Sum of Lines 36 and 37) (Equal to Line 3)	(49)	$ 1,492,481

ADDITIONAL DATA			
39	Previous Year's Net Sales	(50)	$6,002,478
40	Previous Year's Ending Inventory (FIFO Basis)	(51)	$ 992,313
41	Average Number of Employees During 1990 (include all management personnel and all other employees. Convert part-time employees into full-time equivalents depending upon how much they worked relative to full-time employees. For example, two half-time employees each working twelve months would be counted as one employee)	(52)	# 21
42	Percent of Total 1990 Sales that were made for Cash (estimate if necessary)	(53)	17 %
43	Were you on a LIFO inventory valuation system during 1990?	(54)	Yes ☐ No ☒
44	Total Number of Customer Invoices During the Year (optional)	(55)	# 21,484
45	Annual # of Billing Lines on Customer Invoices (optional)	(56)	# 171,872
46	Interest Paid in 1990 (also include this amount on Line 13)	(57)	$ 13,092
47	Percent of Warehouse Sales coming from Non-Stock Items (optional)	(87)	8 %
48	Total 1990 Depreciation Expense	(85)	$ 18,310

DETAIL OF ACCOUNTS RECEIVABLE (YEAR END)					
LINE #		CODE #	NUMBER OF INVOICES	CODE #	AMOUNT IN DOLLARS (omit cents)
49	Current (0 - 30 Days Outstanding)	(58)	# 257	(84)	$ 571,339
50	31 - 60 Days Outstanding	(59)	# 47	(85)	$ 154,748
51	61 - 90 Days Outstanding	(60)	# 17	(86)	$ 189,310
52	Over 90 Days Outstanding	(61)	# 28	(87)	$ 181,337
53	Total Accounts Receivable (Sum of Lines 49 thru 52) (Equal to Line 18)	(63)	# 349	(89)	$1,096,734

AMERICAN SUPPLY ASSOCIATION

DESCRIPTION OF OPERATING EXPENSE CATEGORIES

Selling Expenses

Selling executive salaries, commissions and bonuses; outside and inside salespeople salaries, commissions and bonuses; other selling personnel (clerical, secretarial and order takers) salaries, bonuses and wages; selling personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

Selling related: supplies; stationery; printing; automobile expense; travel and entertainment; dues and membership; conventions and meetings; education and training; advertising; promotions; brochures; showrooms; merchandise shows; miscellaneous.

Delivery Expenses

Delivery supervisor(s) salaries and bonuses; other delivery personnel (clerical, secretarial, drivers) salaries, bonuses and wages; delivery personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Delivery related: supplies; gas and oil; tires; other automotive supplies; towel and uniform services; trucks, automobiles and other equipment repairs and maintenance; insurance (automobiles and trucks); licenses; equipment rental; trucks, automobiles and other equipment depreciation; dues and memberships; education and training; travel and entertainment; delivery services (cartage, freight, express); miscellaneous.

Warehouse Expenses

Warehouse supervisor salaries and bonuses; other warehouse personnel (clerical, secretarial, laborers, and other) salaries, bonuses and wages; warehouse personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Warehouse related: supplies; travel and uniform services; equipment repairs and maintenance; insurance (inventory); equipment rental and depreciation; education and training; travel and entertainment; miscellaneous.

General Administrative Expenses

Executive salaries and bonuses; supervisor salaries and bonuses; other salaries and bonuses (including buyers); general and administrative personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

General and administrative related expenses (including purchasing expenses); supplies; stationery and printing; travel and uniform services; telephone and telegraph; postage; automobiles and other equipment repairs, maintenance, and depreciation; insurance (property, automotive, etc.); license, equipment and automobile rental; furniture and fixtures depreciation; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; employment advertising; collection expense; cash over or short; donations; accounting services; legal services; other services; directors fees; miscellaneous. Also include bad debts written off.

Occupancy Expenses

Facilities management supervisor salaries and bonuses; janitor and maintenance personnel wages; occupancy personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions, profit-sharing trust contributions; other employee welfare).

Janitor and maintenance supplies; building and building equipment repairs and maintenance; janitor services; building and building equipment insurance; real estate taxes; rent (if applicable); building equipment rental; utilities (power, light, water, heat); building and building equipment depreciations (if applicable); miscellaneous.

Other Operating Expenses

All operating expenses not specified above.

ASA Education Foundation, Inc.
222 Merchandise Mart Plaza
Suite 1360
Chicago, Illinois 60654
312/464-0090

A3025-1

1992 Operating Performance Report

for the PHCP Wholesale/Distribution Industry
PVF Distributing Industry

1992 Operating Performance Report

Presented by:

THE AMERICAN SUPPLY ASSOCIATION
222 Merchandise Mart Plaza, Suite 1360
Chicago, IL 60654

Paul Heieck, ***President***
Robert Stichweh, ***Chairman-Management Information Services Council***
Peter W. Schwartz, ***Executive Vice President***

Professionally prepared by:

INDUSTRY INSIGHTS, INC.
1585 Bethel Road
Columbus, OH 43220
(614) 442-6626

For the tenth consecutive year, the ASA **Annual Operating Performance Report** was compiled, tabulated and analyzed by Industry Insights, Inc. in cooperation with the American Supply Association and key industry members.

Industry Insights, headquartered in Columbus, Ohio, is a professional research and consulting firm providing management and marketing services to trade and professional associations and their members. The company specializes in industry operating surveys, compensation studies, educational programs and customized research services.

(Additional copies of the report are available from the ASA office)
Just call (312) 464-0090

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About This Report

This 1992 American Supply Association **Operating Performance Report of the PHCP Wholesale/Distribution and PVF Distributing Industries** (based on 1991 financial data) represents the most complete, accurate and up-to-date data base of full-service plumbing, heating, cooling and piping (PHCP) wholesaler financial and operating data published anywhere. The information contained in this report is designed to provide easy-to-understand guidelines for identifying business performance improvement opportunities.

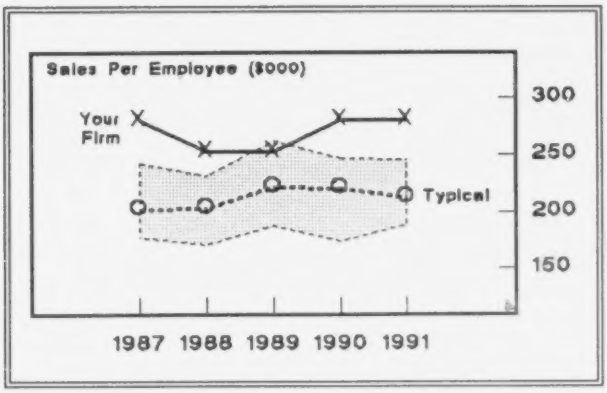
For the tenth consecutive year, the **Operating Performance Report** (OPR) was prepared by Industry Insights, Inc. of Columbus, Ohio, while working closely with the American Supply Association staff. Confidential survey forms (refer to the Appendix for a sample) were sent to ASA members in early March and 286 completed and usable responses were received. This represents one of the largest data bases of respondents among any wholesale/distribution industry.

As in the past, this year's report includes comparative financial ratios and statistics by type of firm, sales volume size and high profit firms. In addition, building upon the historical information that has resulted from past ASA operating performance surveys, this year's study contains various ten year industry trend data, along with appropriate analysis. Such information is important for identifying shifts occurring within the industry which may be representative of future conditions.

Perhaps the most valuable feature of the ASA **Operating Performance Report** is that all firms participating in the survey automatically receive a confidential Company Performance Report. This report presents a company's own ratios and data computed in a manner consistent with those appearing in the industry report and displayed alongside the appropriate industry comparatives. (A representative page from a sample Company Performance Report is illustrated on the following page.)

As shown on any given line of the Company Performance Report, a firm's own data is included along with industry averages for firms of a comparative sales volume, type of business, etc. Thus, the individual owner/manager is provided invaluable information without having to spend time and effort making the calculations manually. In addition, for any firm which participated in more than one consecutive ASA OPR study in recent years, the Company Performance Report includes multiple year **trend data** in graphical form. Also, once again, these highly confidential reports contain a computer-generated qualitative assessment of a company's situation, including some possible alternative courses of action.

Sample Company Performance Report



COMPANY NO. 500

	YOUR FIRM	ALL PLUMBING & P-V-F FIRMS: TYPICAL	ALL PLUMBING & P-V-F FIRMS: MIDDLE RANGE
OVERALL PERFORMANCE MEASURES			
Net Profit After Tax to Net Worth	6.5 %	3.8	0.2 - 7.4
Total Assets to Net Worth	2.2 TIMES	1.7	1.3 - 2.4
Net Profit After Tax to Total Assets	2.9 %	2.0	0.2 - 3.7
Net Sales to Total Assets	2.5 TIMES	2.5	2.1 - 2.8
Net Profit After Tax to Net Sales	1.2 %	0.7	0.1 - 1.7
Net Profit Before Tax to Net Worth	10.6 %	5.4	0.6 - 11.9
Net Profit Before Tax to Total Assets	4.8 %	2.7	0.4 - 6.7
EBIT to Total Assets	5.4 %	3.8	2.3 - 9.4
SALES ANALYSIS			
Net Sales($000)	15,805	8,188	4,763 - 18,189
Percent Sales Change from Prior Year	-2.0 %	-1.6	-7.1 - 5.9
Sales Mix:			
Direct Sales	11.0 %	11.6	4.5 - 15.0
Warehouse Sales - Counter and Delivery	89.7 %	88.4	85.0 - 95.5
TOTAL SALES	100.0 %	100.0	100.0 - 100.0
PRODUCT SALES MIX			
Plumbing Supplies & Equipment	30.0 %	42.8	38.8 - 50.0
Heating & Cooling Supplies & Equipment	0.0 %	22.6	13.0 - 30.3
P-V-F (Pipes-Valves-Fittings)	30.0 %	24.2	14.8 - 33.0
Other Supplies & Equipment	30.0 %	6.5	0.0 - 10.0
Other	10.0 %	4.0	0.0 - 5.3
TOTAL SALES	100.0 %	100.0	100.0 - 100.0
GROSS MARGIN			
Gross Margin on Net Sales	25.4 %	26.2	22.4 - 28.4
Gross Margin on Direct Shipments	14.9 %	12.6	10.0 - 17.7
Gross Margin on Warehouse Sales	26.6 %	27.1	24.3 - 29.2
ASSET AND FINANCIAL MANAGEMENT			
Current Asset Turn (Sales/Current Assets)	2.6 TIMES	2.9	2.4 - 3.3
Total Debt to Net Worth	120.9 %	66.2	33.7 - 137.3
Current Debt to Net Worth	48.5 %	46.0	30.0 - 112.7

SUMMARY PERFORMANCE EVALUATION

Your Firm's Performance Compared to "All Similar Firms"

NET PROFIT AFTER TAX TO NET WORTH.....(WEAK)

Return on Net Worth (RONW) is one overall measure of company profitability, expressing the percentage return earned on the owner's investment in the business.

Your firm's RONW was below the lower quartile performance level, suggesting that further investigation is warranted to determine where profit leaks are occurring. While you may conclude that no significant problems exist, suggested areas of review are asset turnover, profit margin, and financial leverage (the three basic components of RONW).

Wouldn't it be great to track your firm's performance month-to-month and compare your results to industry averages?

... Now you can with ProfiTrak

ProfiTrak, an easy-to-use software program, makes it possible for you to monitor your company's progress on a timely basis. Designed for IBM© PC/XT/AT or compatible computers, **ProfiTrak** will help you determine:

- Where your firm is wasting money.
- If you are as profitable as you should and can be.
- If your employees are productive.
- If your firm is financially strong.
- If your receivables are well-managed.

ProfiTrak is Unique . . .

ProfiTrak is specifically designed for your firm and your industry. Based on your participation in the association's recent financial operating performance survey, your confidential **ProfiTrak** diskette will be sent to you already containing your firm's results and appropriate industry comparatives. Even if you did not participate in the association survey, you can easily enter your numbers into **ProfiTrak** and the program will calculate your ratios and make comparisons to industry norms. Now you won't be wasting valuable time trying to customize the software to your industry. Also, since your **ProfiTrak** diskette is self-contained, there is no need to adapt to a complicated spread-sheet program.

Heard reports of other software that have fallen short? . . .

It's unfortunate that many companies have invested in costly software packages that are too generic to do any good. But because **ProfiTrak** is *uniquely* and *confidentially* prepared for *your* firm, you can be sure it's a tool that will provide a better understanding of your operations — and ultimately improve your bottom line.

ProfiTrak is as easy as turning on your computer.

Because **ProfiTrak** is so simple to use (completely menu-driven with on-screen help) — you can begin implementing the program the day you receive it. . . . But don't be fooled by **ProfiTrak's** simplicity. It is a powerful management tool with many built-in features (see inside . . .) You will come to think of **ProfiTrak** truly as your Desktop Financial Partner.

ProfiTrak is a Trademark of Industry Insights, Inc.

How To Order ProfiTrak

Simply cut out and mail the order form along with your check or money order. Once ordered, your confidential **ProfiTrak** diskette, along with a "get acquainted" manual and registration card (for annual update/program enhancement information) will be sent to you within 10 working days.

Computer Requirements:
IBM™ PC/XT/AT or compatible, with at least 256k memory, DOS 2.0 and up; monochrome or color monitor.

Please return this order form and your check or money order to American Supply Association, 222 Merchandise Mart Plaza, Suite 1360, Chicago, IL 60654

☐ I want to order ProfiTrak. Enclosed is my check or money order, computed as follows:

$_____ Association Member Price ($195) (First time purchase)

$_____ Non-Member Price ($295) (First time purchase)

$_____ Purchase of ProfiTrak update with the latest industry figures ($75) (for past ProfiTrak purchasers only)

$ $3.50 Shipping & Handling

$_____ Illinois residents add 8.0% Sales Tax

$_____ TOTAL

☐ I am very interested, but I have some questions. Please call me, or. . . for faster service, call Industry Insights at (614) 442-6626.

☐ Yes, I participated in the OPR Survey. My confidential company code # is: $_____

Please check one:
____3-1/2" diskette
____5-1/4" diskette

I prefer the:
____Monochrome monitor version
____Color monitor version

Name/Title:_____
Company Name:_____
Shipping Address:_____
City/State/Zip:_____
Business Phone:_____

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How to Use This Report

The 1992 ASA **Operating Performance Report of the PHCP Wholesaler/Distribution and PVF Distributing Industries** has been designed to help wholesalers evaluate their own performance relative to that of similar companies in order to identify improvement opportunities. The statistics in this report represent broad performance *"yardsticks"* against which a company's performance can be measured.

Using this information, PHCP and PVF wholesalers can compare their own firm's financial and operating performance with: the industry as a whole; firms having the same general product emphasis; firms of a comparable sales volume; and the highest profit firms. Spotting significant differences between your own firm's performance and the industry composites can be the first step toward improving performance. Keep in mind, however, that:

1. *A deviation between your firm's figures (for any performance measure) and numbers in the report is not necessarily good or bad. It merely indicates that additional analysis may be required.* As a rule, the larger the difference, the greater the need for further investigation.

2. In situations where large deviations do exist, it may be helpful to go back and calculate the same performance measure over the past several years to identify any trends that may exist.

3. The information in this report should be used as a tool for informed decision making rather than absolute standards. Since firms differ as to their product emphasis, location, size, and other factors, any two firms can be successful yet have very different experiences with regard to certain performance measures.

UNDERSTANDING THE DATA

In order to use the information in this report to maximum advantage, it is important to understand *how the data is arranged* and *how to interpret them.*

How the Tables are Organized

The tables in this report are organized to include a number of important financial ratios for each relevant "grouping" of similar firms. In particular, the major "groupings" used include:

- All Reporting Firms--refers to the results of all firms responding to the survey.
- Product Emphasis Group:
  - Plumbing Supply Firms--those firms that derive over 50% of sales from plumbing products.
  - PVF Firms--those firms that derive over 50% of sales from PVF products.
  - Plumbing Supply & PVF Firms--those firms that derive more than 50% of sales from plumbing and PVF products combined but less than 50% from either category alone.
  - HVAC & Other Firms--those firms that cannot be classified in any of the above three groups; or those companies which derive less than 50% of sales from combined plumbing supplies and equipment, and PVF.
- Product Emphasis Group by Sales Volume
- By Product Emphasis Group by High Profit Firms (refers to those firms

How to Use This Report

whose before tax return on assets are in the upper half of performance)

- Large Volume Firms (those with sales volume of $50 million & over)

The table of contents shows specifically where each table can be found.

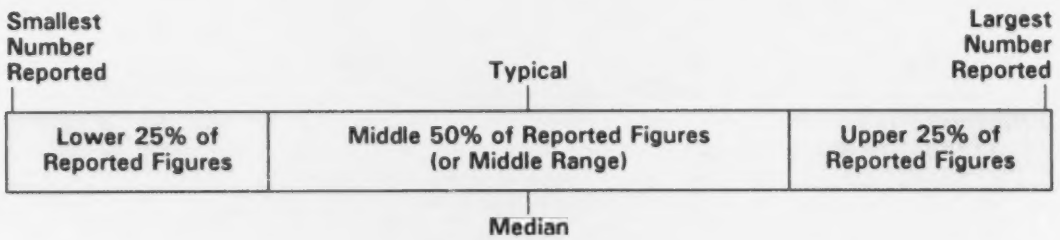
Interpreting the Numbers

Most of the performance indicators included in this study are reported on the basis of medians rather than arithmetical averages or means. Unlike the mean, the median is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances. The "median" figure represents the mid-point of the figures for a particular measure, with one-half of the firms reporting figures above it and one-half below. Each median was computed independently based on the companies which reported for that item. As a result, **mathematical relationships do not always exist** when different ratios are used together in the calculation. For example, the median net sales minus the median cost of goods sold may not necessarily equal the median gross margin percent.

Also included for most of the performance indicators is the "Middle Range." This represents the experience of the middle 50 percent of all firms in the data grouping when items are arranged numerically from lowest to highest. In other words, the upper and lower limits on the "Middle Range" are simply the upper and lower quartiles respectively for that ratio.

Figures reported by responding members were not used unless they were in accordance with the survey instructions and definitions. In cases where the number of companies reporting was considered inadequate for the computation of a meaningful figure, blank spaces appear in the tables, or an "insufficient data" (ISD) notation is included.

Further insights into how to use this report are included in the Appendix in the section entitled: "Ratio Definitions and Sample Calculations." An important point to keep in mind when using this report is that *even relatively simple analysis of your company's own financials using the industry data for comparison can yield important insights into your business. You do not have to be a financial expert to benefit from this information.*



Using Comparative Financial Performance Information For Better Banking Relations

Virtually all industry firms at one time or another are faced with the need to finance their business. This may come in the form of a line of credit to support temporary cash flow needs, money to finance receivables, cash for capital expenditures and business expansion, or many other purposes. When this need occurs, a good banking relationship is imperative to not only assure that you obtain the financing required, but at favorable rates.

Establishing strong banking relationships usually occurs over a period of time. Certainly, the extent to which you have a successful history of borrowing and repayment, the greater the likelihood of favorable treatment in future bank dealings. However, there are ways to facilitate the process of establishing credit worthiness. One way is to properly present your company's financial situation through the use of comparative financial performance information, such as is provided in the ASA ***Operating Performance Report (OPR)***.

THE IMPORTANCE OF COMPARATIVE FINANCIAL INFORMATION

Above all else, bankers like numbers. Essentially, financial information, and mathematical formulas based on financial information, represent the only real concrete tools available to bankers in analyzing your firm's credit worthiness. However, in using financial information, bankers are somewhat limited in that most lending officers are probably not extremely familiar with the specifics of the PHCP Wholesaling/PVF Distributing business. To the extent you can provide relevant information not only about your business, but about other firms similar to yours, you can guide the banker in understanding your operations.

GUIDELINES FOR PRESENTING YOUR COMPANY TO THE BANK

For those of you who feel your banking relationship could be improved, here are a few pointers.

1. **Be Prepared to Respond to the Banker's Formulas.** Lenders are known for taking a company's financial data and plugging the numbers into neat, convenient formulas. It is useful, therefore, to know and be prepared to defend your firm's numbers based on these formulas.

   It is appropriate to request which formulas your bank uses and be insistent that you are told. If necessary, indicate your wish to use the formulas as the basis for improving your firm's performance.

   Generally, there are four main categories of financial information that bankers use.

   - Liquidity and Cash Management Ratios (current ratio, quick ratio, working capital ratios, etc.)
   - Asset Productivity (sales to assets)
   - Leverage (total assets to net worth)
   - Expense Management (expenses as a percentage of sales)

   Industry comparatives to other industry firms like yours for each of these are included in this report. Using this information will not only familiarize your banker with the climate and direction of the industry, but will serve as a benchmark for evaluating your own firm's ratios.

2. **Prepare Pro Forma Statements.** Bankers also tend to rely heavily on (and be impressed by) pro forma statements. Essentially, these are forecasts or predictions of how you think your firm's financials will look some time in the future. Pro forma income statements, balance sheets, and cash flow statements are the most important to bankers. Pro formas are especially important if your firm has a special financial deficiency that needs to be overcome. Through pro formas, you can show the bank how you *plan* to make your company financially stronger.

   While pro formas are oftentimes difficult to prepare, the task has been simplified greatly by today's computer spreadsheet and financial management programs.

3. **Recognize That Loans Are Negotiable.** Loans, like most financial data, are negotiable. Virtually every aspect of a loan is subject to discussion and agreement, including the amount, the rate, the payment terms, payment schedule, compensating balances, any personal guarantees or any other provision. However, to effectively negotiate the most favorable terms possible requires preparation and skill on your part. Knowing the banker's interests, being able to defend your firm's strengths and weaknesses, and being armed with plans for improvements, will be instrumental in your negotiating success.

   One question often asked is "How do I get a business loan without pledging my house, car, boat and first born?" The answer is "You may not." But here's something that might work. Take out a small loan that does not require a personal guarantee. Pay it back before it is due. Then ask for a somewhat larger loan and repay early again. Eventually, your banking relationship may build to the point that a personal guarantee is not needed.

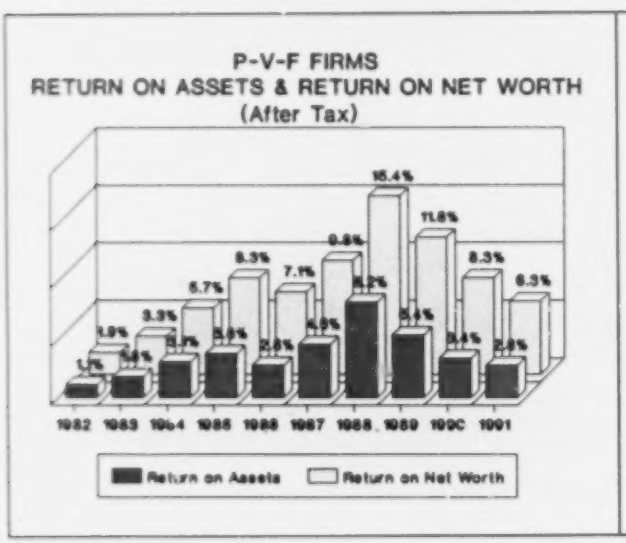
Executive Summary of Survey Results

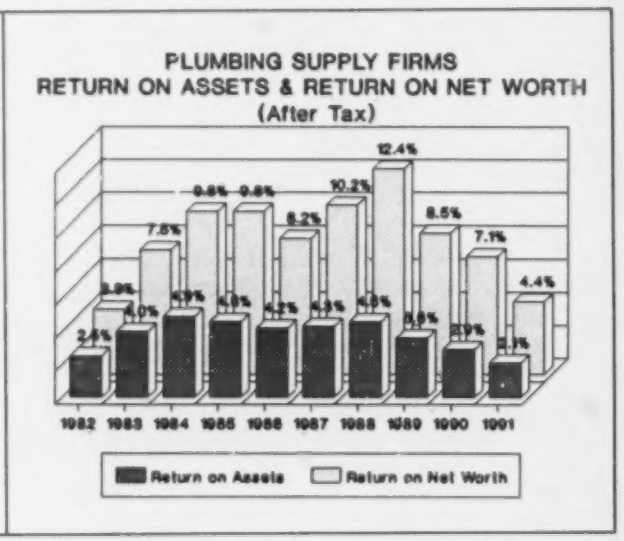
Once again this year, the *ASA Operating Performance Report* is organized as a set of easily referenced industry performance tables These are divided into four primary sections corresponding to the product emphasis groups in the industry, which are defined as:

- Plumbing Supply Firms
- PVF Firms
- Plumbing Supply & PVF Firms
- HVAC and Other Firms

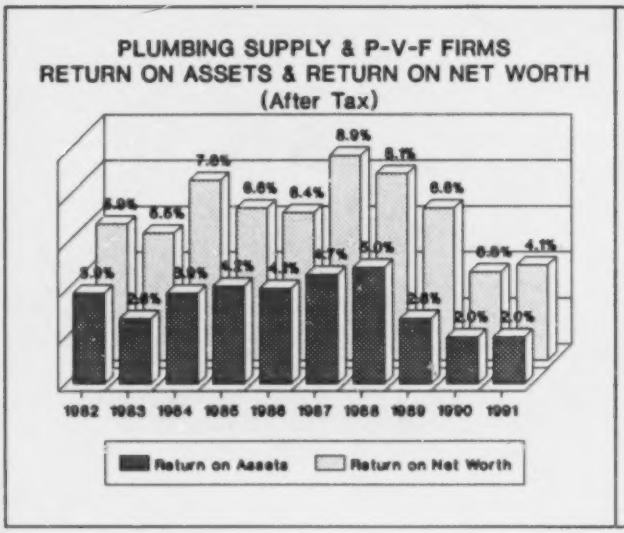
In using this study to evaluate your own company's performance, you should refer to the section which most closely corresponds with your firm's operation. This detailed information should be kept handy and referenced from time to time as a tool for better controlling and managing your business. Even more importantly, the 1991 performance results can be compared to prior years' results in order to identify any trends that have taken place. This is useful for understanding not only where the industry has been, but also for anticipating the future direction of the PHCP/PVF wholesale business. Following are highlights of the 1991 results as well as insights regarding patterns of change during the ten year 1982-1991 period.

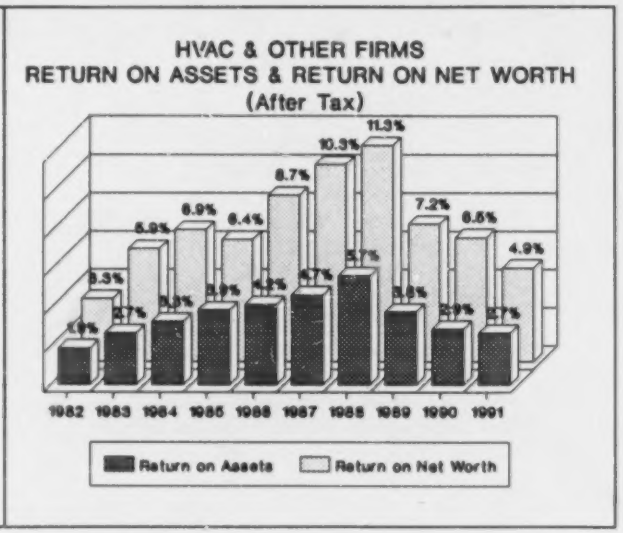
The series of tables and graphs on the next several pages have been abstracted from the comprehensive set of statistics. These data represent good overall gauges of PHCP wholesaler performance in key areas of profitability, financial management, accounts receivable, expenses and profits, and sales performance.


P-V-F FIRMS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989 1990 1991
Return on Assets
Return on Net Worth


PLUMBING SUPPLY FIRMS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989 1990 1991
Return on Assets
Return on Net Worth

Executive Summary of Survey Results


PLUMBING SUPPLY & P-V-F FIRMS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989 1990 1991
Return on Assets
Return on Net Worth


HVAC & OTHER FIRMS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989 1990 1991
Return on Assets
Return on Net Worth

Profitability

For the third consecutive year overall profitability declined in 1991 reflecting the recessionary conditions that existed throughout the United States during the past three years. Return on net worth (after tax) for the typical firm was 4.6%, down from the 5.7% experienced in 1990, 8.5% in 1989, and 12.5% in 1988. Return on assets (after tax) also decreased in 1991, as the typical firm earned 2.3% versus 2.8% in 1990, 3.7% in 1989 and 5.6% in 1988. **PVF** firms reported the highest returns on net worth and assets of 6.3% and 2.8 % respectively, while the group of **Plumbing Supply & PVF** firms reported the lowest returns, 4.1% and 2.0%.

As shown in the accompanying graphs, the past three years have been a reversal of a general uptrend in industry profitability that has occurred since 1982.

EXPENSES, PROFITS AND SALES GROWTH

The primary contributing factor to the lower overall profitability performance of industry firms during the past three to four years has been a steady decline in bottom line profit margins (i.e., profits as a percent of sales). This has essentially occurred in each of the four industry segments.

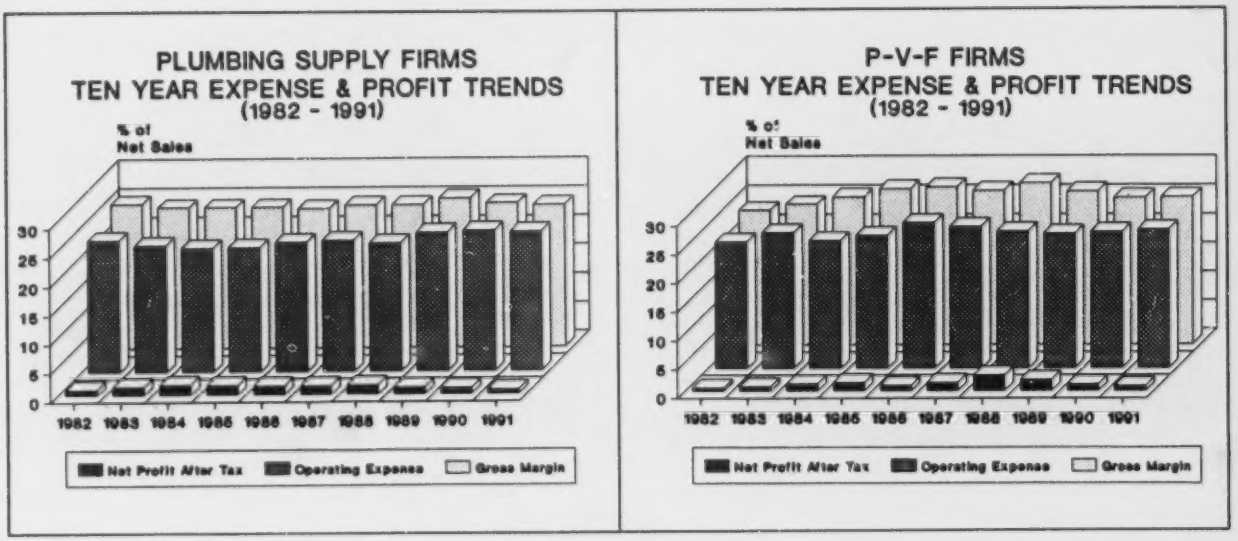
- **Plumbing Supply Firms** have gone from a 1.7% profits on sales in 1988 to 1.3% in 1989 to 1.1% in 1990, and to 0.8% in 1991.
- **PVF Firms** have similarly dropped from 2.8% in 1988 to 2.0% in 1989 to 1.2% in 1990, and to 0.9% in 1991.
- **Plumbing Supply & PVF Firms** went from a profit margin of 1.7% in 1988 to 1.2% in 1989 to 0.7% in 1990, and then up slightly to 0.9% in 1991.
- **HVAC & Other Firms** experienced a profit margin drop from 2.0% in 1988 to 1.3% in 1989 and then remained at 1.3% in 1990 before dropping again to 1.1% in 1991.

Executive Summary of Survey Results

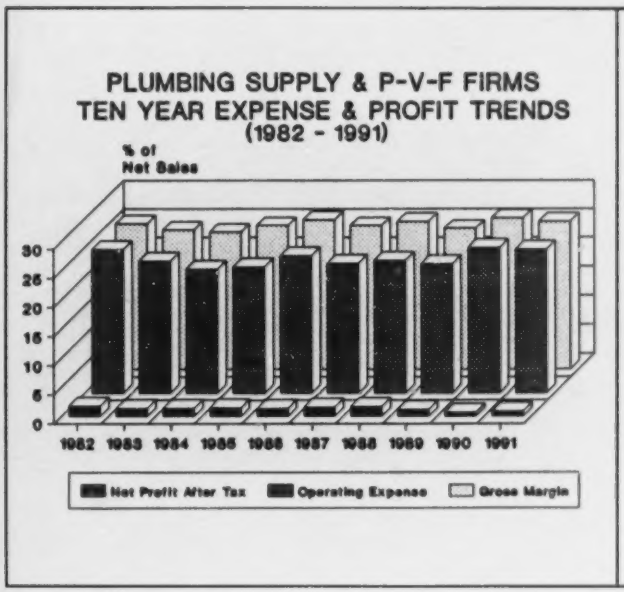
Declines in profit margins and overall profitability that have been experienced industry-wide have, in part, been reflective of a significant slowdown in overall sales growth during the past three years, which has thus resulted in increased competition and a reduced ability to leverage fixed expenses. In other words, as sales growth has slowed, gross margins have become vulnerable and expenses relative to sales have tended to increase--thus lower profit margins have occurred.

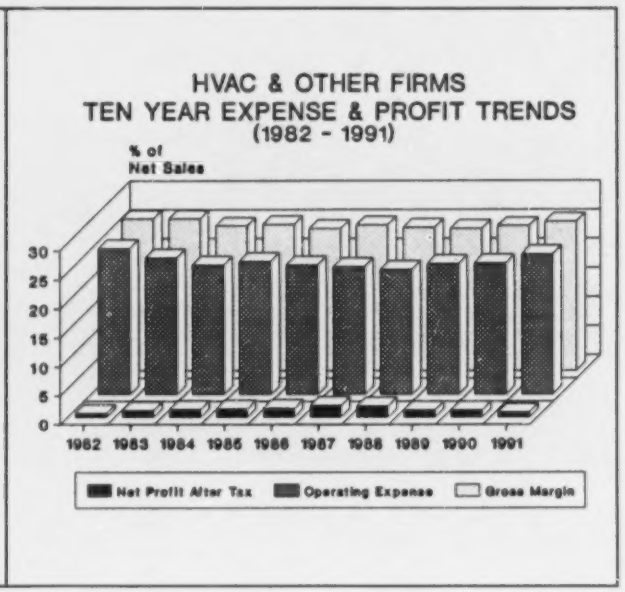
The accompanying charts and graphs highlight the expenses and profit trends that have occurred in the industry over the years as well as the sales growth patterns experienced by each industry segment.

For your reference, additional insights into the make-up of sales for each industry segment are shown in the accompanying **sales mix** and **product mix** graphs. These indicate the mix of direct or drop shipment sales and warehouse sales, as well as the mix of product sales for each type of wholesaler.



Executive Summary of Survey Results



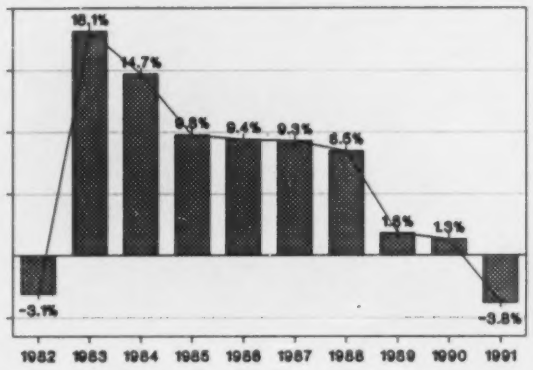


	Plumbing Supply Firms				PVF Firms			
	1991	**1990**	**1989**	**1988**	**1991**	**1990**	**1989**	**1988**
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross Margin	24.6	24.9	25.8	24.7	25.7	25.6	26.7	28.1
Operating Expenses	24.0	24.2	23.9	22.1	24.1	23.7	23.4	23.8
Profit After Tax	0.8	1.1	1.3	1.7	0.9	1.2	2.0	2.8

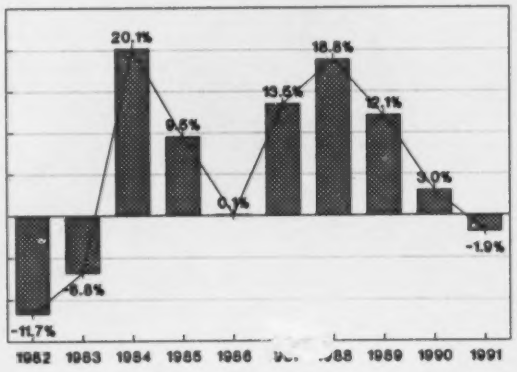
	Plumbing Supply & PVF Firms				HVAC & Other			
	1991	**1990**	**1989**	**1988**	**1991**	**1990**	**1989**	**1988**
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross Margin	25.6	26.2	24.3	25.6	25.5	24.9	24.5	24.7
Operating Expenses	24.7	25.0	22.2	22.8	24.5	22.6	22.5	21.5
Profit After Tax	0.9	0.7	1.2	1.7	1.1	1.3	1.3	2.0

Executive Summary of Survey Results

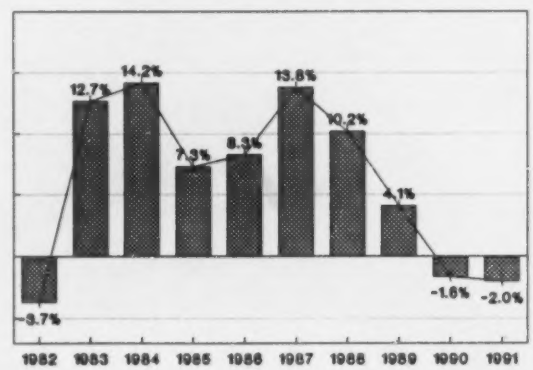
PLUMBING SUPPLY FIRMS
SALES GROWTH



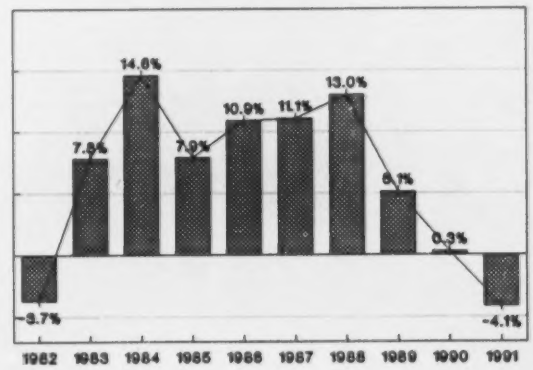
P-V-F FIRMS
SALES GROWTH



PLUMBING SUPPY & P-V-F FIRMS
SALES GROWTH



HVAC & OTHER FIRMS
SALES GROWTH



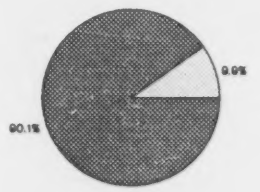
Executive Summary of Survey Results

Sales Mix

PLUMBING SUPPLY FIRMS

P-V-F. FIRMS

PLUMBING SUPPLY &
P-V-F- FIRMS

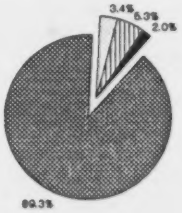


HVAC & OTHER FIRMS

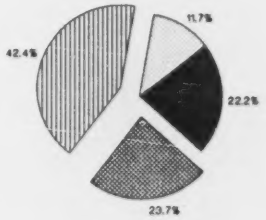
Product Mix

PLUMBING SUPPLY FIRMS

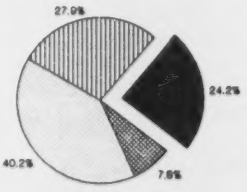
P-V-F FIRMS

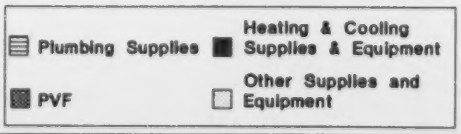


PLUMBING SUPPLY &
P-V-F FIRMS



HVAC & OTHER FIRMS





Executive Summary of Survey Results

PROFIT MODEL 1991 VS. 1990

Each year's ASA *Operating Performance Report* contains a special analysis showing industry profitability based on "return on net worth" (before tax). This single measure essentially summarizes all the key components of profitability: margin management, asset management, and financial policy (debt) management.

The exhibit on the following page shows the profit model for all wholesalers as well as the four types of wholesalers. This model is an extremely useful framework in which a company can quickly and easily see which areas of the business need improving. For those companies who received an ASA **Company Performance Report**, your company's figures have been calculated and displayed alongside the industry comparatives. This model's usefulness is best suited to an individual company wishing to compare their operations with a benchmark or guideline in hope of identifying improvement opportunities.

The easiest way to understand the model is by starting in the middle and working backwards. Return on assets, as the model indicates, is the product of the profit margin and asset turnover. Profit margin refers to net profit before tax divided by net sales and is a good measure of margin management, since in order to earn an acceptable profit a company must earn an acceptable gross margin while keeping expenses in line. Asset turnover depicts net sales divided by total assets and is a good measure of asset productivity. This measure indicates how many dollars in sales are being generated by each dollar of assets employed in the business. When asset turnover is multiplied by profit margin, the result is return on assets. Any improvement in your profit margin or asset turnover will improve the return on assets. Return on net worth, as the model shows, is the product of the return on assets and leverage. Leverage, an indicator of the degree to which debt is used for financing, magnifies the return on assets to yield the return on net worth. Given any level of profits, the more debt a company has (or the less net worth), the higher the return on net worth will be.

Based on the profit models shown for PHCP wholesalers, it is evident that lower profit margins were the main contributor to the lower return on assets and return on net worth. This was true of all four industry segments.

OTHER PERFORMANCE MEASURES

In addition to the key components of industry profitability outlined above, many other factors contribute to PHCP wholesaler success. One such ingredient involves the extent to which a company controls accounts receivables. While effective receivables management may be a routine process for many firms, if this is not done properly, several unfavorable circumstances can occur.

- Cash flow becomes tight due to excess dollars tied up in receivables, and paying bills on time may become difficult.
- Profitability leaks occur since receivables have corresponding costs, such as administrative costs, financing costs, and collection costs (i.e., lawyers, credit bureaus, collection agencies, etc.). In addition, if receivables problems persist, bad debt expenses may become more and more significant.

Executive Summary of Survey Results

1991	1990

Plumbing Supply Firms

	1991	1990
Profit Margin	1.1%	1.4%
X		
Asset Turnover	2.5x	2.7x
= Return on Assets	2.8%	3.8%
X Financial Leverage	2.0x	2.0x
= Return on Net Worth	5.6%	8.7%

PVF Firms

	1991	1990
Profit Margin	1.2%	1.5%
X		
Asset Turnover	3.2x	3.0x
= Return on Assets	3.8%	4.5%
X Financial Leverage	2.1x	2.2x
= Return on Net Worth	8.0%	10.1%

Plumbing Supply and PVF Firms

	1991	1990
Profit Margin	1.3%	1.1%
X		
Asset Turnover	2.5x	2.5x
= Return on Assets	3.2%	2.7%
X Financial Leverage	1.9x	1.7x
= Return on Net Worth	5.9%	5.4%

HVAC & Other Firms

	1991	1990
Profit Margin	1.6%	1.9%
X		
Asset Turnover	2.3x	2.5x
= Return on Assets	3.7%	4.7%
X Financial Leverage	1.8x	2.0x
= Return on Net Worth	6.8%	9.6%

All Reporting Firms

	1991	1990
Profit Margin	1.3%	1.5%
X		
Asset Turnover	2.5x	2.7x
= Return on Assets	3.2%	4.1%
X Financial Leverage	2.0x	2.0x
= Return on Net Worth	6.4%	8.4%

Mathematical relationships may not total due to rounding.
All figures in the profit model are computed on a before tax basis.

Executive Summary of Survey Results

- Money tied up in excess receivables can prohibit your firm from taking advantage of growth opportunities and could jeopardize your ability to compete effectively, especially in times when profits and sales growth are slim.

This report provides several indicators of receivables management. One such measure is the "average collection period" or "days outstanding in receivables" as it is often called. This measure has shown the following pattern for the four types of wholesalers over the last nine years.

Plumbing Supply firms have typically reported an average collection period of about 49 days, which is exactly what was reported for 1990.

PVF firms, on average, over the past ten years have collected receivables approximately every 45 days. In 1991 the typical firm reported an average collection period of 44 days.

Plumbing Supply and PVF firms have typically reported an average collection period of 50 days, but this was up somewhat, to 53 days in 1991.

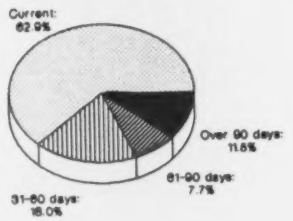
HVAC & Other firms on average over the years have collected receivables every 46 days. In 1991 the typical firm reported an average collection period of 44 days.

In addition to the "average collection period," another useful way to manage receivables is through the accounts receivable aging table as shown to the right.

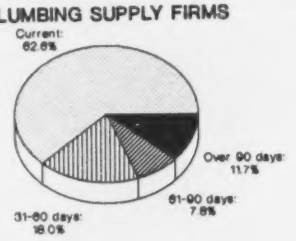
In addition to receivables management information, the tables on the following pages show a variety of other performance barometers over the past 10 years for each of the four PHCP wholesaler segments as well as the industry overall in the aggregate.

Accounts Receivable Aging--1991
Percent of Accounts Receivable Dollars

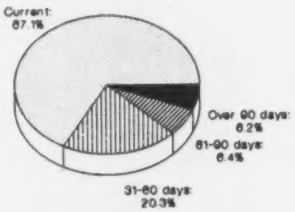
ALL FIRMS



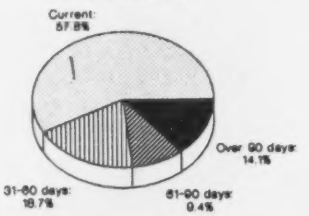
PLUMBING SUPPLY FIRMS



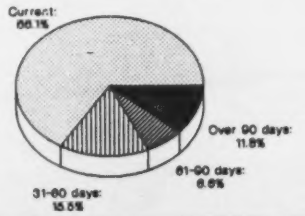
P-V-F FIRMS



PLUMBING SUPPLY & P-V-F FIRMS



HVAC & OTHER FIRMS



ALL REPORTING P-H-C-P AND P-V-F WHOLESALER/DISTRIBUTORS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON 1982-1991

	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Profitability										
After Tax Return on Net Worth	4.6%	5.7%	8.5%	12.5%	9.8%	8.1%	8.8%	8.2%	6.3%	3.8%
After Tax Return on Assets	2.3%	2.8%	3.7%	5.6%	4.5%	4.0%	4.0%	4.1%	3.1%	2.3%
Financial Management										
Total Debt to Net Worth	96.6%	97.7%	95.3%	110.6%	104.6%	90.8%	88.0%	82.7%	78.4%	68.3%
Current Assets minus Inventory to Current Debt	1.1x	1.1x	1.0x	1.0x	1.0x	1.0x	1.1x	1.1x	1.1x	1.3x
Personnel Productivity										
Net Sales per Employee (nominal $)	$229,156	$226,583	$220,830	$220,921	$200,712	$193,225	$187,024	$186,131	$167,380	$152,258
Net Sales per Employee (adjusted for inflation)*	$175,922	$179,327	$174,846	$182,128	$170,964	$169,794	$168,642	$172,824	$161,097	$152,258
Payroll and Fringe Benefits to Net Sales	15.0%	14.7%	14.6%	13.9%	13.0%	13.3%	13.5%	13.7%	14.1%	14.5%
Inventory Management										
Gross Margin on Sales	25.2%	25.3%	25.5%	25.3%	25.1%	24.9%	24.9%	24.5%	24.8%	25.0%
Cost of Warehouse Goods Sold to Average Inventory	3.4x	3.6x	3.9x	3.7x	3.6x	3.6x	3.4x	3.6x	3.3x	3.1x
Total Cost of Goods Sold to Average Inventory	4.1x	4.1x	4.2x	4.5x	4.2x	4.2x	4.0x	4.1x	3.8x	3.6x
Warehouse Gross Margin Return on Inventory	119%	123%	133%	131%	128%	122%	120%	123%	114%	109%
Accounts Receivable										
Average Collection Period (days)	47	46	47	49	48	47	47	48	50	47
Percent of Invoices Over 90 Days Outstanding	9.4%	10.5%	8.3%	7.9%	7.5%	7.5%	7.4%	6.6%	4.2%	5.7%
Expense Management										
Total Operating Expenses as a Percent of Sales	24.2%	24.0%	23.3%	22.3%	22.7%	22.9%	21.9%	21.5%	22.4%	23.2%
Sales Performance										
Percent Sales Change from Prior Year	-3.5%	0.4%	3.8%	11.3%	11.0%	8.2%	8.3%	15.2%	10.5%	-4.3%

*1982 Dollars

PLUMBING SUPPLY FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1982-1991

	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Profitability										
After Tax Return on Net Worth	4.4%	7.1%	8.5%	12.4%	10.2%	8.2%	9.8%	9.8%	7.5%	3.9%
After Tax Return on Assets	2.1%	2.9%	3.6%	4.6%	4.3%	4.2%	4.6%	4.9%	4.0%	2.5%
Financial Management										
Total Debt to Net Worth	104.8%	96.3%	97.8%	136.1%	109.8%	106.9%	92.8%	90.7%	85.8%	68.9%
Current Assets minus Inventory to Current Debt	1.0x	1.0x	0.98x	0.94x	1.0x	1.1x	1.0x	1.0x	1.0x	1.3x
Personnel Productivity										
Net Sales per Employee (nominal $)	$230,473	$225,720	$212,273	$222,209	$203,256	$196,208	$195,342	$189,182	$171,166	$158,548
Net Sales per Employee (adjusted for inflation)*	$175,624	$176,930	$168,070	$183,190	$173,131	$172,415	$176,142	$175,656	$164,741	$158,548
Payroll and Fringe Benefits to Net Sales	14.5%	15.0%	14.5%	13.7%	12.6%	13.1%	13.2%	13.5%	13.7%	14.1%
Inventory Management										
Gross Margin on Sales	24.6%	24.9%	25.8%	24.7%	24.7%	24.1%	24.3%	24.3%	24.3%	25.0%
Cost of Warehouse Goods Sold to Average Inventory	3.3x	3.7x	4.0x	3.7x	3.6x	3.9x	3.7x	3.8x	3.7x	3.3x
Total Cost of Goods Sold to Average Inventory	4.0x	4.2x	4.1x	4.4x	4.1x	4.1x	4.0x	4.2x	4.1x	3.7
Warehouse Gross Margin Return on Inventory	114%	127%	133%	126%	129%	124%	118%	126%	124%	113%
Accounts Receivable										
Average Collection Period (days)	49	45	50	52	51	48	48	49	50	50
Percent of Invoices Over 90 Days Outstanding	9.0%	12.0%	8.0%	8.3%	7.4%	7.2%	7.0%	6.3%	4.0%	5.6%
Expense Management										
Total Operating Expenses as a Percent of Sales	24.0%	24.2%	23.9%	22.1%	22.6%	22.3%	21.4%	21.3%	21.8%	22.7%
Sales Performance										
Percent Sales Change from Prior Year	-3.8%	1.3%	1.8%	8.5%	9.3%	9.4%	9.8%	14.7%	18.1%	-3.1%

*1982 Dollars

P-V-F FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1982-1991

	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Profitability										
After Tax Return on Net Worth	6.3%	8.3%	11.8%	15.4%	9.8%	7.1%	8.3%	5.7%	3.3%	1.9%
After Tax Return on Assets	2.8%	3.4%	5.4%	8.2%	4.6%	2.8%	3.8%	3.1%	1.8%	1.1%
Financial Management										
Total Debt to Net Worth	112.3%	123.9%	106.6%	110.4%	104.6%	80.7%	84.1%	74.4%	83.9%	83.3%
Current Assets minus Inventory to Current Debt	1.1x	1.1x	1.1x	1.0x	1.0x	1.2x	1.0x	1.1x	1.1x	1.2x
Personnel Productivity										
Net Sales per Employee (nominal $)	$271,932	$289,322	$243,792	$251,503	$210,031	$205,236	$218,040	$197,975	$196,923	$201,377
Net Sales per Employee (adjusted for inflation)	$202,999	$222,661	$193,026	$207,340	$178,902	$180,348	$196,609	$183,821	$189,531	$201,377
Payroll and Fringe Benefits to Net Sales	14.2%	13.7%	14.5%	15.1%	14.7%	14.6%	15.9%	14.4%	14.1%	13.9%
Inventory Management										
Gross Margin on Sales	25.7%	25.6%	26.7%	28.1%	26.8%	27.4%	27.1%	25.7%	24.4%	23.4%
Cost of Warehouse Goods Sold to Average Inventory	3.8x	4.3x	4.4x	4.2x	3.5x	3.3x	3.3x	3.2x	3.1x	2.7x
Total Cost of Goods Sold to Average Inventory	5.0x	5.5x	5.0x	4.9x	4.6x	4.2x	4.1x	4.2x	3.6x	3.7x
Warehouse Gross Margin Return on Inventory	132%	143%	146%	159%	143%	127%	127%	121%	109%	95%
Accounts Receivable										
Average Collection Period (days)	44	48	42	46	48	43	43	48	51	40
Percent of Invoices Over 90 Days Outstanding	7.7%	9.6%	9.4%	7.3%	8.3%	7.4%	9.5%	6.9%	4.2%	5.8%
Expense Management										
Total Operating Expenses as a Percent of Sales	24.1%	23.7%	23.4%	23.8%	24.6%	25.3%	23.1%	22.2%	23.6%	22.0%
Sales Performance										
Percent Sales Change from Prior Year	-1.9%	3.0%	12.1%	18.8%	13.5%	0.1%	9.5%	20.1%	-6.8%	-11.7%

*1982 Dollars

PLUMBING SUPPLY & P-V-F FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1982-1991

	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Profitability										
After Tax Return on Net Worth	4.1%	3.8%	6.6%	8.1%	8.9%	6.4%	6.6%	7.8%	5.5%	5.9%
After Tax Return on Assets	2.0%	2.0%	2.8%	5.0%	4.7%	4.1%	4.2%	3.9%	2.8%	3.9%
Financial Management										
Total Debt to Net Worth	85.7%	66.2%	108.0%	81.4%	75.7%	73.4%	79.9%	61.7%	56.7%	42.5%
Current Assets minus Inventory to Current Debt	1.3x	1.3x	1.1x	1.0x	1.1x	1.1x	1.2x	1.3x	1.4x	1.5x
Personnel Productivity										
Net Sales per Employee (nominal $)	$212,338	$220,561	$223,668	$202,519	$202,179	$189,599	$191,710	$191,422	$167,513	$152,807
Net Sales per Employee (adjusted for inflation)	$160,598	$171,977	$177,093	$166,957	$172,214	$166,607	$172,867	$177,736	$161,225	$152,807
Payroll and Fringe Benefits to Net Sales	16.2%	16.3%	15.2%	15.2%	14.4%	14.9%	14.2%	13.7%	14.3%	15.3%
Inventory Management										
Gross Margin on Sales	25.6%	26.2%	24.3%	25.6%	24.8%	25.9%	24.8%	23.7%	24.1%	25.2%
Cost of Warehouse Goods Sold to Average Inventory	3.8x	3.6x	3.9x	4.1x	3.9x	3.7x	3.7x	3.4x	3.4x	2.8x
Total Cost of Goods Sold to Average Inventory	4.4x	3.8x	4.7x	4.6x	4.2x	4.4x	4.5x	4.1x	4.0x	3.6x
Warehouse Gross Margin Return on Inventory	128%	134%	140%	137%	125%	130%	127%	111%	108%	106%
Accounts Receivable										
Average Collection Period (days)	53	50	54	50	48	54	51	48	49	46
Percent of Invoices Over 90 Days Outstanding	10.6%	11.6%	10.0%	9.6%	6.9%	7.7%	8.9%	6.2%	3.8%	5.8%
Expense Management										
Total Operating Expenses as a Percent of Sales	24.7%	25.0%	22.2%	22.8%	22.3%	23.6%	21.7%	21.3%	22.7%	24.7%
Sales Performance										
Percent Sales Change from Prior Year	-2.0%	-1.6%	4.1%	10.2%	13.8%	8.3%	7.3%	14.2%	12.7%	-3.7%

*1982 Dollars

HVAC & OTHER FIRMS

TEN-YEAR SUMMARY PERFORMANCE COMPARISON
1982-1991

	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Profitability										
After Tax Return on Net Worth	4.9%	6.5%	7.2%	11.3%	10.3%	8.7%	6.4%	6.9%	5.9%	3.3%
After Tax Return on Assets	2.7%	2.9%	3.8%	5.7%	4.7%	4.2%	3.9%	3.3%	2.7%	1.9%
Financial Management										
Total Debt to Net Worth	80.4%	101.3%	74.7%	92.1%	106.5%	92.5%	78.9%	83.8%	87.1%	92.7%
Current Assets minus Inventory to Current Debt	1.0x	1.0x	1.0x	0.9x	0.9x	0.9x	1.0x	1.0x	1.0x	1.1x
Personnel Productivity										
Net Sales per Employee (nominal $)	$208,205	$212,333	$218,502	$217,748	$184,982	$177,161	$166,551	$164,970	$144,910	$133,715
Net Sales per Employee (adjusted for inflation)	$159,080	$167,252	$173,002	$179,512	$157,566	$155,678	$150,181	$153,175	$139,471	$133,715
Payroll and Fringe Benefits to Net Sales	14.7%	13.7%	14.1%	13.0%	12.5%	12.6%	12.7%	13.9%	14.3%	15.1%
Inventory Management										
Gross Margin on Sales	25.5%	24.9%	24.5%	24.7%	25.1%	24.5%	25.2%	24.9%	26.2%	26.1%
Cost of Warehouse Goods Sold to Average Inventory	3.1x	3.4x	3.4x	3.6x	3.4x	3.3x	3.1x	3.3x	2.8x	3.3x
Total Cost of Goods Sold to Average Inventory	3.4x	3.8x	4.0x	4.3x	3.8x	3.7x	3.4x	3.9x	3.4x	3.4x
Warehouse Gross Margin Return on Inventory	104%	115%	118%	120%	110%	113%	109%	118%	102%	111%
Accounts Receivable										
Average Collection Period (days)	44	43	44	44	45	46	46	46	49	50
Percent of Invoices Over 90 Days Outstanding	10.5%	6.7%	6.8%	6.2%	7.2%	8.2%	6.3%	7.5%	5.2%	5.8%
Expense Management										
Total Operating Expenses as a Percent of Sales	24.5%	22.6%	22.5%	21.5%	22.0%	22.3%	22.9%	22.3%	23.5%	25.1%
Sales Performance										
Percent Sales Change from Prior Year	-4.1%	0.3%	5.1%	13.0%	11.1%	10.9%	7.9%	14.6%	7.8%	-3.7%

*1982 Dollars

Executive Summary of Survey Results

High Profit Firm Analysis

The primary purpose of the *Operating Performance Report* is to help PHCP wholesalers improve their performance. A useful tool for doing this is to study the performance characteristics of the high profit firms in the industry and then strive to emulate such performance.

It should be understood that not all highly profitable companies will exhibit the characteristics indicated by the accompanying "high profit" firm data. However, it is a good idea to focus attention on the characteristics of these profit leaders in order to help identify which business activities might yield the biggest profitability boost for your firm.

The following table is a summary of the key indicators of profitability, showing the results of the high profit firms as compared to the typical or median company performance. Although there are many differences in what highly profitable companies do to be profitable, some generalizations can be made.

- The high profit firms in each of the four groups experienced better sales growth than other firms. While even the high profit firms were hard hit by the recession, as reflected by flat or negative sales growth, these companies did manage to outperform other industry firms.
- The most profitable firms generally experienced lower operating expenses as a percentage of sales than that of the typical firm within each industry segment.
- The high profit firms in each of the four groups reported having a lower debt obligation than the typical firm in the industry as measured by *total debt as a percent of net worth*.
- Gross margins as a percent of sales were higher for the industry profit leaders in three of the four industry segments. This pattern was also true of the measure "warehouse gross margin return on inventory."

Executive Summary of Survey Results

1991 High Profit vs. "Typical Firm" Performance Comparison

	Plumbing Supply ----Firms----		P-V-F ----Firms----		Plumbing Supply & ---PVF Firms---		HVAC & Other -----Firms----	
	Typical	High Profit	Typical	High Profit	Typical	High Profit	Typical	High Profit
Profitability								
Net Profit (Before Tax) to Total Assets	2.8%	7.3%	3.8%	6.9%	3.2%	7.5%	3.7%	6.6%
Net Profit (Before Tax) to Net Worth	5.6%	13.3%	8.0%	13.5%	5.9%	12.7%	6.8%	11.3%
Net Profit (Before Tax) to Net Sales	1.1%	2.9%	0.9%	2.2%	1.3%	3.0%	1.1%	2.8%
Asset and Financial Management								
Net Sales to Total Assets	2.5x	2.5x	3.2x	3.2x	2.5x	2.5x	2.3x	2.4x
Total Debt to Net Worth	104.8%	79.6%	112.3%	92.1%	85.7%	71.5%	80.4%	59.5%
Current Assets to Current Debt	2.4x	2.5x	2.3x	2.4x	2.9x	3.3x	2.6x	2.9x
Personnel Productivity								
Net Sales/Employee (000)	$230	$246	$272	$286	$212	$236	$208	$210
Payroll & Fringe Benefits to Net Sales	14.5%	13.7%	14.2%	14.0%	16.2%	16.0%	14.7%	14.8%
Inventory Management								
Gross Margin on Net Sales	24.6%	25.1%	25.7%	24.2%	25.6%	26.0%	25.5%	27.3%
Gross Margin on Direct Shipments	10.9%	10.5%	12.8%	14.0%	12.0%	12.4%	17.2%	19.6%
Gross Margin on Warehouse Sales	25.4%	25.4%	25.9%	24.9%	27.5%	27.9%	25.7%	28.5%
Cost of Warehouse Goods Sold to Average Inventory	3.3x	3.3x	3.8x	4.1x	3.8x	3.7x	3.1x	3.2x
% Warehouse Sales from Non-Stock Items	12.5%	13.0%	29.0%	28.0%	13.0%	24.0%	15.0%	18.6%
Cost of In-Stock Warehouse Sales to Average Inventory	2.9x	2.8x	2.7x	2.8x	3.1x	2.8x	2.4x	2.3x
Total Cost of Goods Sold to Average Inventory	4.0x	4.2x	5.0x	5.7x	4.4x	4.5x	3.4x	3.7x
Warehouse Gross Margin Return on Average Inventory	114%	121%	132%	132%	128%	136%	104%	124%
Accounts Receivable								
Average Collection Period (Days)	49	46	44	44	53	48	44	44
Operating Expenses (% of Net Sales)								
Selling Expenses	6.6%	6.5%	8.1%	7.5%	7.2%	7.4%	7.6%	7.2%
Delivery Expenses	2.1%	1.8%	2.2%	1.8%	2.0%	2.0%	1.9%	2.0%
Warehouse Expenses	2.9%	2.8%	3.0%	2.9%	3.1%	3.3%	2.8%	2.7%
General & Admin. Expenses	9.3%	8.1%	8.3%	6.9%	9.7%	8.6%	9.8%	10.5%
Occupancy Expenses	2.7%	2.6%	2.2%	1.7%	2.6%	1.9%	2.3%	2.5%
Total Operating Expenses	24.0%	22.4%	24.1%	21.0%	24.7%	23.4%	24.5%	24.8%
Sales Performance								
Percent Sales Change from Prior Year	-3.8%	-0.4%	-1.9%	0.2%	-2.0%	0.3%	-4.1%	-2.7%

1992 ASA Operating Performance Survey Detailed Results

Plumbing Supply Firms

Plumbing Supply Firms

	ALL PLUMBING SUPPLY FIRMS		HIGH PROFIT PLUMBING SUPPLY FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	4.4%	0.2 - 11.4	10.0%	6.4 - 15.0
Total Assets to Net Worth	2.0X	1.6 - 3.0	1.8X	1.4 - 2.4
Net Profit After Tax to Total Assets	2.1%	-0.3 - 4.8	5.3%	3.3 - 7.4
Net Sales to Total Assets	2.5X	2.1 - 2.9	2.5X	2.2 - 2.9
Net Profit After Tax to Net Sales	0.8%	-0.1 - 2.1	2.1%	1.3 - 3.6
Net Profit Before Tax to Net Worth	5.6%	0.3 - 14.1	13.3%	8.9 - 19.7
Net Profit Before Tax to Total Assets	2.8%	-0.1 - 7.3	7.3%	4.4 - 10.2
EBIT to Total Assets	5.8%	2.8 - 9.7	9.0%	6.4 - 11.5
SALES ANALYSIS				
Net Sales($000)	$6,900	4,318 - 16,460	$8,366	4,656 - 17,828
Percent Sales Change from Prior Year	-3.8%	-11.0 - 4.6	-0.4%	-6.1 - 6.6
Sales Mix:				
Direct Sales	10.0%	3.6 - 13.9	10.4%	5.8 - 13.7
Warehouse Sales--Counter and Delivery	90.0%	86.1 - 96.4	89.6%	86.3 - 94.2
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	78.9%	65.0 - 95.0	77.0%	63.5 - 90.0
Heating & Cooling Supplies & Equipment	10.9%	0.0 - 21.5	11.4%	0.0 - 20.5
P-V-F (Pipes-Valves-Fittings)	5.6%	0.0 - 10.0	5.0%	0.0 - 10.0
Other Supplies & Equipment	2.2%	0.0 - 5.0	3.1%	0.0 - 5.0
Other	2.3%	0.0 - 0.0	3.5%	0.0 - 2.3
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	24.6%	21.2 - 27.7	25.1%	21.0 - 27.6
Gross Margin on Direct Shipments	10.9%	8.9 - 15.0	10.5%	8.9 - 15.0
Gross Margin on Warehouse Sales	25.4%	23.1 - 29.0	25.4%	23.1 - 29.2
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.9X	2.5 - 3.4	3.0X	2.6 - 3.5
Total Debt to Net Worth	104.8%	55.8 - 198.8	79.6%	40.8 - 135.9
Current Debt to Net Worth	82.6%	37.5 - 144.6	57.2%	32.6 - 96.6
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.4X	1.7 - 3.6	2.5X	2.1 - 4.0
Current Assets Minus Inventory/Curr Debt	1.0X	0.7 - 1.6	1.2X	0.9 - 1.9
Net Sales to Working Capital	4.8X	3.6 - 7.9	4.8X	3.4 - 6.1
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.2%	0.7 - 3.7	4.3%	2.7 - 5.8
Net Profit Before Tax plus Depreciation to Total Assets	5.1%	2.0 - 9.1	10.5%	6.9 - 11.5
Working Capital to Total Assets	47.7%	32.0 - 61.4	55.7%	43.0 - 67.5
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	5.0	4.1 - 7.0	5.0	4.3 - 7.0
Average Invoice Size	$149	106 - 190	$139	112 - 180
Average Billing Line	$29.51	17.87 - 40.96	$29.05	18.04 - 36.32

Plumbing Supply Firms

	ALL PLUMBING SUPPLY FIRMS		HIGH PROFIT PLUMBING SUPPLY FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$230,473	199,854 - 267,832	$246,387	221,576 - 280,313
Gross Margin Per Employee	$55,760	46,473 - 65,797	$60,801	53,870 - 70,938
Average Compensation Per Employee	$27,839	24,594 - 32,034	$30,077	24,748 - 33,693
Average Fringe Benefits Per Employee	$5,233	4,182 - 6,607	$5,770	4,825 - 6,905
Compensation & Fringes Per Employee	$32,958	29,290 - 38,767	$35,970	30,066 - 39,388
Payroll to Net Sales	12.0%	10.8 - 14.3	11.8%	10.6 - 13.6
Fringe Benefits to Net Sales	2.3%	1.7 - 3.1	2.2%	1.8 - 3.0
Payroll & Fringes to Net Sales	14.5%	12.4 - 17.1	13.7%	12.4 - 16.3
Payroll to Gross Margin	50.5%	45.5 - 56.2	48.8%	44.8 - 52.3
Fringe Benefits to Gross Margin	9.7%	8.0 - 11.5	8.9%	7.7 - 11.0
Payroll & Fringes to Gross Margin	59.7%	54.1 - 65.9	57.6%	52.3 - 63.3
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.3X	2.9 - 4.2	3.3X	2.9 - 4.2
% of Whse Sales from Non-Stock Items	12.5%	6.5 - 16.0	13.0%	8.7 - 16.0
Cost of In-Stock Whse Sales/Ave Inventory	2.9X	2.3 - 3.6	2.8X	2.3 - 3.7
No. of Days Average Inventory Carried	109 Days	88 - 125	110 Days	86 - 128
Total Cost of Goods Sold to Ave Inventory	4.0X	3.2 - 5.1	4.2X	3.2 - 5.2
Whse Gross Margin Return on Ave Inventory	114%	94 - 147	121%	94 - 151
Turn & Earn Profitability Index	83%	69 - 104	80%	68 - 110
Percent of Firms on LIFO	48.7%	N/A - N/A	52.5%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	49 Days	42 - 58	46 Days	42 - 60
Gross Margin Return on Receivables	181%	139 - 210	179%	142 - 216
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	62.6%	54.8 - 71.3	63.9%	59.0 - 72.3
31-60 Days Outstanding	18.0%	13.6 - 22.0	19.0%	15.4 - 22.2
61-90 Days Outstanding	7.8%	5.1 - 9.8	7.9%	5.2 - 9.7
Over 90 Days Outstanding	11.7%	4.7 - 17.5	9.3%	4.2 - 11.4
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$307	148 - 1,298	$1,042	412 - 1,807
31-60 Days Outstanding	$288	147 - 1,825	$1,781	485 - 2,495
61-90 Days Outstanding	$301	141 - 2,412	$2,237	642 - 2,513
Over 90 Days Outstanding	$283	110 - 1,858	$1,503	260 - 2,300
Total	$270	162 - 1,597	$1,010	196 - 1,880
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	69.6%	61.9 - 76.3	77.3%	69.6 - 88.3
31-60 Days Outstanding	14.8%	12.2 - 18.0	13.2%	6.7 - 17.5
61-90 Days Outstanding	6.6%	4.0 - 8.1	4.4%	3.0 - 5.5
Over 90 Days Outstanding	9.0%	3.4 - 12.8	5.1%	2.3 - 7.5
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

Plumbing Supply Firms

	ALL PLUMBING SUPPLY FIRMS		HIGH PROFIT PLUMBING SUPPLY FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	75.4%	72.3 - 78.8	74.9%	72.4 - 79.0
Gross Margin	24.6%	21.2 - 27.7	25.1%	21.0 - 27.6
Operating Expenses:				
Selling Expenses	6.6%	4.7 - 8.0	6.5%	4.5 - 7.3
Delivery Expenses	2.1%	1.5 - 2.7	1.8%	1.2 - 2.3
Warehouse Expenses	2.9%	1.8 - 3.5	2.8%	1.9 - 3.1
General & Administrative Expenses	9.3%	6.9 - 11.0	8.1%	6.6 - 8.9
Occupancy Expenses	2.7%	1.7 - 3.3	2.6%	1.7 - 3.3
Other Operating Expenses	0.4%	0.0 - 0.0	0.6%	0.0 - 0.5
Total Operating Expenses	24.0%	20.2 - 27.0	22.4%	19.7 - 24.8
Net Operating Profit	0.7%	-0.9 - 2.5	2.7%	1.5 - 3.7
Non-Operating Income	2.1%	1.0 - 3.0	1.9%	0.8 - 3.0
Non-Operating Expenses	1.8%	1.0 - 2.5	1.8%	0.9 - 1.7
Net Profit Before Tax	1.1%	-0.2 - 2.9	2.9%	1.9 - 4.7
Net Profit After Tax	0.8%	-0.1 - 2.1	2.1%	1.3 - 3.6
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	24.0%	20.2 - 27.0	22.4%	19.7 - 24.8
Total Operating Expense to Gross Margin	97.3%	89.7 - 103.9	89.2%	85.6 - 94.1
Non-People Expense to Net Sales	8.4%	6.5 - 9.6	7.4%	6.4 - 8.4
Non-People Expense to Gross Margin	34.6%	27.5 - 41.5	30.0%	25.5 - 33.3
INTEREST EXPENSE				
Interest Expense to Net Sales	0.9%	0.3 - 1.7	0.6%	0.2 - 1.1
Times Interest Earned	3.0X	1.0 - 7.0	7.0X	4.0 - 16.0
BALANCE SHEET				
Cash	4.8%	0.7 - 5.5	7.1%	0.9 - 11.1
Accounts & Notes Receivable, Trade(Net)	31.6%	25.0 - 39.0	32.0%	25.3 - 39.2
Inventory	47.8%	41.1 - 54.6	46.2%	39.6 - 54.0
Other Current Assets	2.2%	0.2 - 3.0	1.7%	0.2 - 2.3
Total Current Assets	86.4%	82.6 - 92.5	86.9%	83.3 - 94.0
All Other Assets	13.6%	7.5 - 17.4	13.1%	6.0 - 16.7
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	39.0%	22.3 - 53.6	32.9%	21.1 - 43.2
Total Long-Term Liabilities	13.8%	2.0 - 22.5	11.1%	0.5 - 18.3
Total Liabilities	52.8%	36.1 - 70.3	44.0%	29.0 - 57.6
Total Net Worth	47.2%	29.7 - 63.9	56.0%	42.4 - 71.1
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

Plumbing Supply Firms

	Sales Under $4,000,000		Sales $4,000,000 to $7,000,000	
	Typical	Middle Range	Typical	Middle Range
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	2.3%	-1.8 - 8.6	3.9%	-1.9 - 8.7
Total Assets to Net Worth	1.7X	1.3 - 2.5	2.4X	1.5 - 3.5
Net Profit After Tax to Total Assets	1.3%	-1.2 - 4.7	2.0%	-1.0 - 4.8
Net Sales to Total Assets	2.3X	2.0 - 2.6	2.6X	2.0 - 3.0
Net Profit After Tax to Net Sales	0.6%	-0.5 - 2.3	0.7%	-0.4 - 1.9
Net Profit Before Tax to Net Worth	2.9%	-2.0 - 10.6	5.2%	-1.9 - 11.8
Net Profit Before Tax to Total Assets	1.7%	-1.2 - 5.8	2.3%	-1.0 - 6.8
EBIT to Total Assets	4.0%	1.1 - 8.0	5.4%	2.9 - 8.1
SALES ANALYSIS				
Net Sales($000)	$2,514	1,607 - 3,312	$5,222	4,707 - 6,179
Percent Sales Change from Prior Year	-5.0%	-17.9 - 6.9	-6.1%	-12.4 - -0.3
Sales Mix:				
Direct Sales	6.3%	0.0 - 8.9	10.1%	3.5 - 11.9
Warehouse Sales--Counter and Delivery	93.7%	91.1 - 100.0	90.0%	88.1 - 96.5
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	83.0%	70.0 - 100.0	79.3%	67.0 - 93.8
Heating & Cooling Supplies & Equipment	7.6%	0.0 - 12.5	11.1%	0.0 - 23.8
P-V-F (Pipes-Valves-Fittings)	5.5%	0.0 - 10.0	5.7%	0.0 - 10.0
Other Supplies & Equipment	2.4%	0.0 - 5.0	1.9%	0.0 - 4.3
Other	1.5%	0.0 - 0.0	2.1%	0.0 - 0.0
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	28.0%	23.1 - 31.8	25.5%	23.7 - 28.4
Gross Margin on Direct Shipments	12.1%	8.8 - 15.4	13.3%	10.0 - 22.5
Gross Margin on Warehouse Sales	29.5%	23.4 - 32.4	27.8%	24.3 - 29.1
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.6X	2.3 - 2.8	2.9X	2.6 - 3.4
Total Debt to Net Worth	69.4%	33.9 - 146.6	137.1%	51.2 - 250.1
Current Debt to Net Worth	53.4%	23.7 - 105.0	92.2%	40.9 - 172.6
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	3.2X	2.3 - 5.1	2.2X	1.5 - 3.5
Current Assets Minus Inventory/Curr Debt	1.2X	0.9 - 2.0	1.0X	0.8 - 1.6
Net Sales to Working Capital	3.6X	3.0 - 5.4	5.0X	3.6 - 9.5
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.9%	0.2 - 4.1	1.6%	0.5 - 3.2
Net Profit Before Tax plus Depreciation to Total Assets	4.3%	0.5 - 8.6	4.0%	1.0 - 7.8
Working Capital to Total Assets	59.0%	48.8 - 71.2	49.5%	33.0 - 67.1
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	5.0	4.4 - 7.0	8.3	6.4 - 10.0
Average Invoice Size	$109	52 - 179	$175	113 - 207
Average Billing Line	$14.99	8.02 - 31.78	$18.29	14.28 - 31.45

Plumbing Supply Firms

	Sales Under $4,000,000		Sales $4,000,000 to $7,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$175,110	134,646 - 218,077	$226,675	191,727 - 269,961
Gross Margin Per Employee	$44,331	40,892 - 54,029	$55,891	50,334 - 64,430
Average Compensation Per Employee	$22,927	19,649 - 29,631	$30,322	26,353 - 33,050
Average Fringe Benefits Per Employee	$4,403	3,075 - 6,077	$6,018	4,497 - 7,535
Compensation & Fringes Per Employee	$27,385	23,490 - 37,141	$37,094	30,498 - 39,410
Payroll to Net Sales	12.7%	11.0 - 17.4	13.3%	12.0 - 15.7
Fringe Benefits to Net Sales	3.2%	1.8 - 4.3	2.5%	1.8 - 3.5
Payroll & Fringes to Net Sales	15.3%	12.5 - 19.3	15.9%	13.8 - 18.1
Payroll to Gross Margin	49.4%	44.3 - 56.7	54.2%	48.3 - 59.3
Fringe Benefits to Gross Margin	9.9%	7.4 - 13.5	9.4%	8.0 - 13.2
Payroll & Fringes to Gross Margin	56.7%	51.1 - 65.6	63.6%	57.4 - 68.9
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.4X	2.2 - 3.8	3.3X	2.9 - 3.9
% of Whse Sales from Non-Stock Items	10.0%	3.6 - 16.6	10.0%	5.9 - 15.0
Cost of In-Stock Whse Sales/Ave Inventory	2.7X	1.7 - 3.4	2.9X	2.4 - 3.8
No. of Days Average Inventory Carried	106 Days	96 - 169	112 Days	93 - 124
Total Cost of Goods Sold to Ave Inventory	3.4X	2.4 - 4.1	4.2X	3.3 - 5.3
Whse Gross Margin Return on Ave Inventory	124%	100 - 153	113%	89 - 143
Turn & Earn Profitability Index	83%	68 - 102	90%	74 - 103
Percent of Firms on LIFO	25.9%	N/A - N/A	25.0%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	50 Days	35 - 64	49 Days	42 - 61
Gross Margin Return on Receivables	201%	131 - 236	168%	139 - 222
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	62.8%	54.5 - 74.3	60.7%	53.3 - 67.3
31-60 Days Outstanding	17.1%	11.1 - 23.6	17.2%	12.0 - 22.9
61-90 Days Outstanding	6.9%	5.0 - 9.5	9.0%	4.9 - 12.2
Over 90 Days Outstanding	13.2%	4.6 - 20.4	13.1%	4.5 - 21.2
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$383	N/A - N/A	$862	N/A - N/A
31-60 Days Outstanding	$198	N/A - N/A	$1,752	N/A - N/A
61-90 Days Outstanding	$130	N/A - N/A	$2,065	N/A - N/A
Over 90 Days Outstanding	$401	N/A - N/A	$273	N/A - N/A
Total	$367	N/A - N/A	$1,012	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	78.1%	N/A - N/A	67.5%	N/A - N/A
31-60 Days Outstanding	11.4%	N/A - N/A	15.3%	N/A - N/A
61-90 Days Outstanding	4.3%	N/A - N/A	7.5%	N/A - N/A
Over 90 Days Outstanding	6.3%	N/A - N/A	9.7%	N/A - N/A
Total	100.0%	N/A - N/A	100.0%	N/A - N/A

Plumbing Supply Firms

	Sales Under $4,000,000		Sales $4,000,000 to $7,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	72.0%	68.2 - 76.9	74.6%	71.6 - 76.3
Gross Margin	28.0%	23.1 - 31.8	25.5%	23.7 - 28.4
Operating Expenses:				
Selling Expenses	8.0%	6.0 - 8.4	6.6%	4.1 - 7.6
Delivery Expenses	2.8%	1.8 - 3.5	2.1%	1.6 - 2.9
Warehouse Expenses	2.7%	1.8 - 3.4	3.2%	1.6 - 4.1
General & Administrative Expenses	10.2%	7.2 - 13.6	10.3%	8.6 - 11.2
Occupancy Expenses	3.3%	1.9 - 5.1	2.2%	1.4 - 3.0
Other Operating Expenses	0.7%	0.0 - 0.1	0.6%	0.0 - 0.4
Total Operating Expenses	27.6%	21.6 - 32.8	24.9%	22.3 - 27.2
Net Operating Profit	0.3%	-1.7 - 3.3	0.6%	-0.7 - 1.4
Non-Operating Income	1.8%	1.4 - 2.9	2.3%	1.2 - 3.0
Non-Operating Expenses	1.3%	0.6 - 1.7	1.9%	1.5 - 2.9
Net Profit Before Tax	0.8%	0.4 - 3.6	0.9%	-0.4 - 2.9
Net Profit After Tax	0.6%	-0.5 - 2.3	0.7%	-0.4 - 1.9
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	27.6%	21.6 - 32.8	24.9%	22.3 - 27.2
Total Operating Expense to Gross Margin	98.0%	85.8 - 106.2	97.8%	94.1 - 103.1
Non-People Expense to Net Sales	8.8%	7.3 - 10.9	8.6%	6.6 - 8.7
Non-People Expense to Gross Margin	31.2%	25.0 - 45.3	33.9%	26.6 - 36.0
INTEREST EXPENSE				
Interest Expense to Net Sales	0.8%	0.3 - 1.3	0.9%	0.5 - 1.6
Times Interest Earned	3.0X	0.0 - 11.0	2.0X	1.0 - 4.0
BALANCE SHEET				
Cash	6.5%	1.2 - 13.5	6.6%	0.4 - 9.9
Accounts & Notes Receivable, Trade(Net)	27.1%	18.5 - 32.7	34.7%	26.3 - 43.7
Inventory	51.9%	43.5 - 60.1	44.2%	38.0 - 50.4
Other Current Assets	2.8%	0.1 - 2.0	1.8%	0.3 - 2.8
Total Current Assets	88.2%	84.8 - 92.0	87.2%	85.4 - 93.9
All Other Assets	11.8%	8.0 - 15.2	12.8%	6.1 - 14.6
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	30.8%	18.3 - 39.0	40.4%	23.9 - 58.2
Total Long-Term Liabilities	11.5%	0.6 - 21.0	15.8%	4.0 - 22.0
Total Liabilities	42.3%	25.3 - 59.3	56.2%	35.6 - 73.5
Total Net Worth	57.7%	40.7 - 74.7	43.8%	26.5 - 64.4
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

Plumbing Supply Firms

	Sales $7,000,000 to $12,000,000		Sales Over $12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	5.3%	3.8 - 9.8	4.9%	1.5 - 13.7
Total Assets to Net Worth	1.8X	1.6 - 2.9	2.2X	1.7 - 3.6
Net Profit After Tax to Total Assets	3.0%	1.4 - 6.2	2.2%	0.1 - 4.7
Net Sales to Total Assets	2.6X	2.4 - 2.8	2.8X	2.2 - 3.2
Net Profit After Tax to Net Sales	1.2%	0.6 - 3.2	0.8%	0.1 - 1.9
Net Profit Before Tax to Net Worth	7.0%	4.8 - 16.8	7.3%	1.5 - 18.7
Net Profit Before Tax to Total Assets	3.4%	2.0 - 8.2	3.4%	0.3 - 7.9
EBIT to Total Assets	5.6%	4.8 - 9.0	6.6%	3.8 - 10.1
SALES ANALYSIS				
Net Sales($000)	$8,473	8,128 - 10,260	$25,284	16,460 - 39,613
Percent Sales Change from Prior Year	-3.5%	-7.8 - 1.7	-1.2%	-9.2 - 6.2
Sales Mix:				
Direct Sales	10.9%	2.0 - 17.4	11.5%	7.4 - 14.0
Warehouse Sales--Counter and Delivery	89.1%	82.6 - 98.0	88.5%	86.0 - 92.6
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	78.4%	65.0 - 95.0	76.0%	61.8 - 87.0
Heating & Cooling Supplies & Equipment	14.3%	0.0 - 25.0	11.4%	0.0 - 18.5
P-V-F (Pipes-Valves-Fittings)	4.0%	0.0 - 5.0	6.5%	0.0 - 10.0
Other Supplies & Equipment	2.4%	0.0 - 3.0	2.3%	0.0 - 4.0
Other	1.0%	0.0 - 0.0	3.7%	0.0 - 5.0
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	24.2%	19.5 - 28.2	22.6%	20.8 - 24.7
Gross Margin on Direct Shipments	8.5%	7.9 - 12.9	11.0%	9.6 - 12.7
Gross Margin on Warehouse Sales	24.5%	21.9 - 28.1	23.9%	22.9 - 26.6
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.9X	2.5 - 3.1	3.3X	2.9 - 3.7
Total Debt to Net Worth	100.0%	60.9 - 188.8	143.9%	74.3 - 251.7
Current Debt to Net Worth	78.1%	53.1 - 107.5	107.1%	50.1 - 227.1
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.5X	1.9 - 3.4	2.0X	1.4 - 2.8
Current Assets Minus Inventory/Curr Debt	1.0X	0.8 - 1.6	0.8X	0.7 - 1.2
Net Sales to Working Capital	5.3X	4.3 - 6.5	6.5X	4.2 - 9.9
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.2%	1.7 - 4.8	2.1%	0.3 - 3.4
Net Profit Before Tax plus Depreciation to Total Assets	7.7%	4.1 - 10.1	5.0%	0.8 - 9.9
Working Capital to Total Assets	46.2%	36.7 - 56.0	39.3%	23.8 - 54.9
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	5.0	4.1 - 7.0	4.6	3.9 - 5.4
Average Invoice Size	$134	87 - 167	$162	137 - 189
Average Billing Line	$28.99	18.95 - 32.95	$40.97	27.47 - 46.69

Plumbing Supply Firms

	Sales $7,000,000 to $12,000,000		Sales Over $12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$242,910	223,778 - 272,073	$245,199	220,829 - 278,751
Gross Margin Per Employee	$62,031	51,153 - 77,137	$57,890	48,139 - 65,209
Average Compensation Per Employee	$29,617	25,440 - 36,769	$28,125	25,938 - 31,760
Average Fringe Benefits Per Employee	$5,437	5,116 - 6,407	$5,028	4,268 - 6,333
Compensation & Fringes Per Employee	$35,243	30,513 - 41,205	$32,973	30,728 - 38,519
Payroll to Net Sales	11.7%	10.0 - 13.8	11.2%	10.1 - 13.1
Fringe Benefits to Net Sales	2.2%	1.9 - 2.8	2.1%	1.7 - 2.4
Payroll & Fringes to Net Sales	13.0%	11.9 - 16.3	13.5%	11.6 - 15.5
Payroll to Gross Margin	49.3%	45.8 - 52.8	51.8%	44.9 - 55.5
Fringe Benefits to Gross Margin	9.4%	8.1 - 10.6	9.8%	8.2 - 10.7
Payroll & Fringes to Gross Margin	57.7%	52.7 - 63.2	59.6%	53.7 - 65.4
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.3X	3.0 - 3.8	3.8X	3.0 - 4.3
% of Whse Sales from Non-Stock Items	10.0%	5.0 - 11.9	15.4%	11.2 - 18.4
Cost of In-Stock Whse Sales/Ave Inventory	2.9X	2.2 - 3.6	3.0X	2.5 - 3.6
No. of Days Average Inventory Carried	110 Days	96 - 123	95 Days	84 - 123
Total Cost of Goods Sold to Ave Inventory	3.4X	3.0 - 4.3	4.7X	3.6 - 5.3
Whse Gross Margin Return on Ave Inventory	105%	87 - 108	122%	96 - 149
Turn & Earn Profitability Index	81%	66 - 84	86%	72 - 112
Percent of Firms on LIFO	55.0%	N/A - N/A	76.2%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	52 Days	46 - 57	46 Days	41 - 55
Gross Margin Return on Receivables	179%	129 - 202	176%	151 - 205
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	60.9%	57.5 - 69.7	64.3%	58.2 - 70.7
31-60 Days Outstanding	20.5%	15.2 - 21.8	17.9%	15.6 - 21.4
61-90 Days Outstanding	7.6%	5.9 - 8.9	7.5%	5.5 - 9.7
Over 90 Days Outstanding	10.9%	6.6 - 15.4	10.3%	5.0 - 15.8
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	N/A	N/A - N/A	$262	163 - 1,502
31-60 Days Outstanding	N/A	N/A - N/A	$275	197 - 2,429
61-90 Days Outstanding	N/A	N/A - N/A	$245	84 - 2,236
Over 90 Days Outstanding	N/A	N/A - N/A	$235	125 - 1,669
Total	N/A	N/A - N/A	$242	176 - 1,334
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	N/A	N/A - N/A	66.2%	58.6 - 71.5
31-60 Days Outstanding	N/A	N/A - N/A	16.5%	14.5 - 21.2
61-90 Days Outstanding	N/A	N/A - N/A	7.9%	6.0 - 9.4
Over 90 Days Outstanding	N/A	N/A - N/A	9.4%	4.8 - 14.2
Total	N/A	N/A - N/A	100.0%	100.0 - 100.0

Plumbing Supply Firms

	Sales $7,000,000 to $12,000,000		Sales Over $12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	75.8%	71.8 - 80.5	77.4%	75.3 - 79.2
Gross Margin	24.2%	19.5 - 28.2	22.6%	20.8 - 24.7
Operating Expenses:				
Selling Expenses	6.0%	3.5 - 8.5	6.2%	5.1 - 7.6
Delivery Expenses	1.7%	1.4 - 2.4	2.0%	1.5 - 2.5
Warehouse Expenses	3.3%	2.2 - 3.6	2.6%	2.0 - 2.8
General & Administrative Expenses	8.4%	7.4 - 9.9	8.7%	6.8 - 9.4
Occupancy Expenses	3.2%	2.7 - 3.8	2.3%	1.7 - 2.8
Other Operating Expenses	0.1%	0.0 - 0.0	0.2%	0.0 - 0.0
Total Operating Expenses	22.7%	17.9 - 27.7	22.1%	19.8 - 23.9
Net Operating Profit	1.6%	0.3 - 2.6	0.6%	-1.0 - 2.3
Non-Operating Income	1.8%	0.8 - 2.2	2.4%	1.3 - 3.1
Non-Operating Expenses	1.8%	0.9 - 2.4	1.8%	1.1 - 2.8
Net Profit Before Tax	1.5%	0.8 - 2.8	1.2%	-0.4 - 2.1
Net Profit After Tax	1.2%	0.6 - 3.2	0.8%	0.1 - 1.9
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	22.7%	17.9 - 27.7	22.1%	19.8 - 23.9
Total Operating Expense to Gross Margin	93.4%	90.5 - 98.2	98.3%	88.9 - 105.2
Non-People Expense to Net Sales	8.2%	6.2 - 9.8	8.3%	6.5 - 8.9
Non-People Expense to Gross Margin	34.0%	30.7 - 38.9	37.2%	29.8 - 41.6
INTEREST EXPENSE				
Interest Expense to Net Sales	0.9%	0.4 - 1.3	1.0%	0.3 - 1.9
Times Interest Earned	4.3X	1.7 - 8.5	2.0X	1.0 - 10.0
BALANCE SHEET				
Cash	3.6%	0.9 - 4.3	2.8%	0.4 - 2.3
Accounts & Notes Receivable, Trade(Net)	31.8%	27.6 - 35.5	32.2%	27.4 - 36.7
Inventory	50.6%	47.0 - 57.3	46.4%	42.0 - 52.3
Other Current Assets	1.5%	0.2 - 1.1	2.6%	0.6 - 3.6
Total Current Assets	87.5%	84.9 - 93.9	83.9%	80.4 - 90.3
All Other Assets	12.5%	6.1 - 15.1	16.1%	9.7 - 19.6
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	39.0%	28.3 - 45.9	43.9%	28.4 - 58.7
Total Long-Term Liabilities	11.1%	0.7 - 14.5	15.1%	3.8 - 24.2
Total Liabilities	50.1%	38.0 - 66.9	59.0%	42.6 - 75.2
Total Net Worth	49.9%	33.1 - 62.1	41.0%	24.8 - 57.4
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

PVF Firms

PVF Firms

	ALL PVF FIRMS		HIGH PROFIT PVF FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	6.3%	-1.4 - 14.7	10.2%	8.1 - 23.1
Total Assets to Net Worth	2.1X	1.6 - 3.0	1.9X	1.6 - 2.7
Net Profit After Tax to Total Assets	2.8%	-1.0 - 4.6	4.8%	3.5 - 11.3
Net Sales to Total Assets	3.2X	2.3 - 3.4	3.2X	2.4 - 3.6
Net Profit After Tax to Net Sales	0.9%	-0.4 - 1.7	1.6%	1.1 - 4.1
Net Profit Before Tax to Net Worth	8.0%	-2.4 - 13.6	13.5%	11.3 - 32.5
Net Profit Before Tax to Total Assets	3.8%	-1.1 - 6.8	6.9%	5.7 - 16.4
EBIT to Total Assets	7.2%	2.4 - 10.4	10.1%	7.8 - 17.5
SALES ANALYSIS				
Net Sales($000)	$9,493	4,982 - 18,862	$11,656	8,931 - 22,336
Percent Sales Change from Prior Year	-1.9%	-7.9 - 5.9	0.2%	-4.8 - 9.4
Sales Mix:				
Direct Sales	14.7%	6.4 - 20.9	14.3%	6.6 - 21.6
Warehouse Sales--Counter and Delivery	85.3%	79.2 - 93.6	85.7%	78.7 - 93.4
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	5.3%	0.0 - 5.0	4.9%	0.0 - 6.3
Heating & Cooling Supplies & Equipment	2.0%	0.0 - 0.0	2.4%	0.0 - 0.0
P-V-F (Pipes-Valves-Fittings)	89.3%	80.0 - 100.0	90.7%	86.8 - 100.0
Other Supplies & Equipment	1.1%	0.0 - 0.0	1.3%	0.0 - 0.0
Other	2.3%	0.0 - 0.0	0.6%	0.0 - 0.0
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	25.7%	20.7 - 27.5	24.2%	21.3 - 28.5
Gross Margin on Direct Shipments	12.8%	11.0 - 16.9	14.0%	12.3 - 17.6
Gross Margin on Warehouse Sales	25.9%	23.5 - 31.5	24.9%	23.3 - 29.2
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	3.5X	2.7 - 3.8	3.7X	2.7 - 3.9
Total Debt to Net Worth	112.3%	58.6 - 197.9	92.1%	58.2 - 169.1
Current Debt to Net Worth	81.2%	37.2 - 133.9	72.4%	31.0 - 124.9
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.3X	1.7 - 4.0	2.4X	1.7 - 4.1
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.8	1.2X	0.9 - 2.1
Net Sales to Working Capital	6.5X	5.1 - 9.4	7.9X	5.4 - 10.0
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.3%	0.6 - 3.5	4.4%	2.1 - 6.2
Net Profit Before Tax plus Depreciation to Total Assets	7.3%	1.8 - 11.1	13.5%	7.8 - 17.1
Working Capital to Total Assets	47.3%	35.2 - 63.4	49.8%	37.2 - 64.7
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	4.3	3.8 - 5.5	6.0	4.0 - 6.0
Average Invoice Size	$374	311 - 560	$340	301 - 474
Average Billing Line	$72.29	62.99 - 114.03	$68.65	53.38 - 71.43

PVF Firms

	ALL PVF FIRMS		HIGH PROFIT PVF FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$271,932	236,943 - 317,209	$286,463	259,790 - 318,004
Gross Margin Per Employee	$66,073	58,253 - 72,345	$70,564	66,595 - 82,130
Average Compensation Per Employee	$31,335	27,867 - 34,618	$33,232	28,268 - 35,360
Average Fringe Benefits Per Employee	$6,916	5,291 - 9,051	$6,662	4,861 - 10,509
Compensation & Fringes Per Employee	$37,409	34,357 - 42,991	$41,827	33,493 - 46,474
Payroll to Net Sales	11.7%	10.2 - 14.3	11.4%	9.7 - 12.8
Fringe Benefits to Net Sales	2.6%	1.7 - 3.9	2.2%	1.7 - 3.8
Payroll & Fringes to Net Sales	14.2%	12.5 - 18.2	14.0%	11.9 - 16.0
Payroll to Gross Margin	49.5%	45.6 - 52.7	48.5%	39.7 - 50.3
Fringe Benefits to Gross Margin	10.5%	7.7 - 12.7	9.6%	7.6 - 12.3
Payroll & Fringes to Gross Margin	59.6%	55.1 - 64.1	57.2%	54.6 - 62.6
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.8X	3.0 - 4.6	4.1X	3.4 - 5.2
% of Whse Sales from Non-Stock Items	29.0%	21.1 - 38.3	28.0%	20.2 - 38.5
Cost of In-Stock Whse Sales/Ave Inventory	2.7X	2.3 - 3.2	2.8X	2.6 - 3.2
No. of Days Average Inventory Carried	97 Days	79 - 122	89 Days	71 - 109
Total Cost of Goods Sold to Ave Inventory	5.0X	3.6 - 5.9	5.7X	4.1 - 6.1
Whse Gross Margin Return on Ave Inventory	132%	119 - 172	132%	124 - 224
Turn & Earn Profitability Index	100%	84 - 123	101%	95 - 145
Percent of Firms on LIFO	55.6%	N/A - N/A	72.2%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	44 Days	39 - 50	44 Days	40 - 47
Gross Margin Return on Receivables	188%	159 - 243	198%	164 - 243
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	67.1%	58.1 - 74.0	69.5%	63.5 - 76.5
31-60 Days Outstanding	20.3%	18.2 - 25.3	20.1%	19.0 - 25.0
61-90 Days Outstanding	6.4%	2.8 - 9.4	5.6%	2.1 - 7.4
Over 90 Days Outstanding	6.2%	2.6 - 9.7	4.8%	2.8 - 6.9
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$312	266 - 435	$273	268 - 381
31-60 Days Outstanding	$307	207 - 371	$286	229 - 352
61-90 Days Outstanding	$228	150 - 317	$234	179 - 303
Over 90 Days Outstanding	$273	164 - 412	$379	238 - 426
Total	$295	268 - 428	$274	270 - 349
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	67.8%	60.5 - 69.5	67.8%	61.8 - 69.1
31-60 Days Outstanding	18.3%	15.1 - 25.3	20.6%	16.9 - 26.0
61-90 Days Outstanding	6.1%	2.8 - 8.8	6.4%	3.7 - 9.5
Over 90 Days Outstanding	7.7%	3.3 - 8.4	5.2%	3.2 - 7.5
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

PVF Firms

	ALL PVF FIRMS		HIGH PROFIT PVF FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	74.3%	72.5 - 79.3	75.8%	71.5 - 78.7
Gross Margin	25.7%	20.7 - 27.5	24.2%	21.3 - 28.5
Operating Expenses:				
Selling Expenses	8.1%	6.0 - 10.1	7.5%	6.0 - 9.0
Delivery Expenses	2.2%	1.5 - 2.9	1.8%	1.5 - 1.9
Warehouse Expenses	3.0%	2.0 - 3.4	2.9%	2.3 - 3.3
General & Administrative Expenses	8.3%	6.0 - 9.4	6.9%	5.9 - 7.8
Occupancy Expenses	2.2%	1.3 - 2.4	1.7%	1.2 - 2.3
Other Operating Expenses	0.3%	0.0 - 0.1	0.4%	0.0 - 0.1
Total Operating Expenses	24.1%	18.3 - 26.0	21.0%	17.7 - 23.3
Net Operating Profit	1.6%	0.9 - 3.2	3.2%	1.9 - 3.8
Non-Operating Income	1.2%	0.5 - 1.3	1.2%	0.8 - 1.2
Non-Operating Expenses	1.7%	1.1 - 2.2	2.1%	1.1 - 2.7
Net Profit Before Tax	1.2%	-0.5 - 2.0	2.2%	1.5 - 3.7
Net Profit After Tax	0.9%	-0.4 - 1.7	1.6%	1.1 - 4.1
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	24.1%	18.3 - 26.0	21.0%	17.7 - 23.3
Total Operating Expense to Gross Margin	93.2%	86.6 - 96.9	87.1%	85.3 - 92.1
Non-People Expense to Net Sales	8.5%	6.2 - 9.1	7.0%	5.8 - 7.9
Non-People Expense to Gross Margin	32.5%	28.7 - 37.2	28.9%	23.5 - 31.9
INTEREST EXPENSE				
Interest Expense to Net Sales	0.9%	0.4 - 1.4	0.7%	0.5 - 1.1
Times Interest Earned	2.0X	1.0 - 7.0	4.1X	2.9 - 10.7
BALANCE SHEET				
Cash	3.0%	0.2 - 4.6	3.7%	1.0 - 5.0
Accounts & Notes Receivable, Trade(Net)	34.6%	26.2 - 41.9	36.9%	31.8 - 42.6
Inventory	45.5%	37.6 - 53.6	45.5%	40.3 - 50.5
Other Current Assets	3.3%	0.5 - 2.4	2.3%	0.5 - 2.0
Total Current Assets	86.4%	83.2 - 92.6	88.4%	86.1 - 92.4
All Other Assets	13.6%	7.4 - 16.9	11.6%	7.6 - 13.9
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	38.2%	21.8 - 51.9	36.4%	20.3 - 51.1
Total Long-Term Liabilities	14.2%	1.2 - 19.6	12.9%	2.3 - 19.6
Total Liabilities	52.4%	37.0 - 66.4	49.2%	36.6 - 62.8
Total Net Worth	47.6%	33.6 - 63.0	50.8%	37.2 - 63.4
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

PVF Firms

	Sales Under $5,000,000		Sales $5,000,000 to $12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	-5.0%	-11.6 - 4.2	7.5%	2.1 - 21.6
Total Assets to Net Worth	2.0X	1.4 - 3.2	2.2X	1.6 - 2.6
Net Profit After Tax to Total Assets	-2.3%	-4.7 - 2.4	3.3%	1.6 - 11.1
Net Sales to Total Assets	2.5X	2.2 - 2.8	3.1X	2.4 - 3.8
Net Profit After Tax to Net Sales	-0.9%	-2.2 - 0.5	1.1%	0.5 - 2.8
Net Profit Before Tax to Net Worth	-5.8%	-11.6 - 6.8	12.7%	2.1 - 32.5
Net Profit Before Tax to Total Assets	-3.1%	-5.0 - 3.7	5.7%	1.6 - 14.8
EBIT to Total Assets	1.1%	-4.3 - 5.8	8.8%	4.0 - 17.5
SALES ANALYSIS				
Net Sales($000)	$3,394	2,648 - 4,251	$9,029	5,941 - 9,439
Percent Sales Change from Prior Year	-7.6%	-9.9 - -1.9	9.1%	-3.1 - 12.8
Sales Mix:				
Direct Sales	12.3%	5.2 - 11.0	16.6%	9.5 - 21.0
Warehouse Sales--Counter and Delivery	87.7%	89.0 - 94.8	83.4%	79.0 - 90.5
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	5.5%	0.0 - 10.0	6.6%	0.0 - 6.3
Heating & Cooling Supplies & Equipment	1.4%	0.0 - 0.0	0.8%	0.0 - 0.0
P-V-F (Pipes-Valves-Fittings)	86.4%	77.5 - 100.0	90.7%	89.5 - 100.0
Other Supplies & Equipment	0.9%	0.0 - 0.0	1.3%	0.0 - 0.0
Other	5.9%	0.0 - 2.5	0.6%	0.0 - 0.0
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	33.1%	N/A - N/A	24.1%	21.6 - 26.8
Gross Margin on Direct Shipments	20.9%	N/A - N/A	12.6%	10.3 - 16.5
Gross Margin on Warehouse Sales	33.4%	N/A - N/A	24.3%	23.3 - 30.4
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.8X	2.6 - 3.5	3.9X	3.4 - 4.3
Total Debt to Net Worth	98.8%	39.2 - 219.7	101.6%	61.4 - 155.3
Current Debt to Net Worth	63.4%	32.9 - 176.8	78.6%	43.0 - 128.7
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	3.4X	2.3 - 5.6	1.9X	1.7 - 3.0
Current Assets Minus Inventory/Curr Debt	1.6X	0.9 - 3.0	0.9X	0.9 - 1.6
Net Sales to Working Capital	5.5X	N/A - N/A	7.9X	7.0 - 10.6
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	-0.7%	N/A - N/A	3.9%	1.7 - 5.7
Net Profit Before Tax plus Depreciation to Total Assets	-0.4%	N/A - N/A	12.3%	5.9 - 17.7
Working Capital to Total Assets	55.2%	N/A - N/A	43.7%	34.8 - 48.6
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	4.0	N/A - N/A	5.2	N/A - N/A
Average Invoice Size	$230	N/A - N/A	$359	N/A - N/A
Average Billing Line	$70.05	N/A - N/A	$70.47	N/A - N/A

PVF Firms

	Sales Under $5,000,000		Sales $5,000,000 to $12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$180,942	146,916 - 238,438	$300,345	271,592 - 320,962
Gross Margin Per Employee	$56,811	52,435 - 61,715	$69,874	65,682 - 81,517
Average Compensation Per Employee	$28,634	27,187 - 31,103	$34,199	32,225 - 34,582
Average Fringe Benefits Per Employee	$7,876	6,483 - 9,991	$6,893	5,866 - 8,843
Compensation & Fringes Per Employee	$36,353	34,575 - 38,437	$42,308	38,710 - 43,333
Payroll to Net Sales	16.9%	12.2 - 20.1	11.8%	10.5 - 13.2
Fringe Benefits to Net Sales	4.0%	2.9 - 4.6	2.7%	1.9 - 3.3
Payroll & Fringes to Net Sales	20.9%	15.2 - 23.6	15.8%	13.1 - 16.3
Payroll to Gross Margin	50.6%	49.3 - 54.9	48.3%	41.2 - 53.7
Fringe Benefits to Gross Margin	14.0%	8.2 - 15.7	11.6%	8.5 - 11.8
Payroll & Fringes to Gross Margin	62.3%	56.5 - 72.1	60.6%	55.3 - 63.8
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.3X	2.9 - 3.7	5.2X	4.4 - 5.5
% of Whse Sales from Non-Stock Items	27.5%	N/A - N/A	37.0%	N/A - N/A
Cost of In-Stock Whse Sales/Ave Inventory	2.3X	N/A - N/A	3.4X	N/A - N/A
No. of Days Average Inventory Carried	112 Days	98 - 127	70 Days	66 - 84
Total Cost of Goods Sold to Ave Inventory	3.6X	3.1 - 4.8	5.9X	4.9 - 6.8
Whse Gross Margin Return on Ave Inventory	159%	122 - 223	162%	146 - 203
Turn & Earn Profitability Index	96%	N/A - N/A	123%	109 - 144
Percent of Firms on LIFO	44.4%	N/A - N/A	50.0%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	43 Days	36 - 53	43 Days	38 - 46
Gross Margin Return on Receivables	285%	N/A - N/A	186%	166 - 243
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	65.5%	57.1 - 82.9	69.2%	64.9 - 74.0
31-60 Days Outstanding	20.2%	15.6 - 25.5	19.0%	16.8 - 21.8
61-90 Days Outstanding	7.2%	3.7 - 11.3	6.1%	2.4 - 9.2
Over 90 Days Outstanding	7.1%	3.4 - 12.9	5.8%	3.0 - 5.0
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	N/A	N/A - N/A	N/A	N/A - N/A
31-60 Days Outstanding	N/A	N/A - N/A	N/A	N/A - N/A
61-90 Days Outstanding	N/A	N/A - N/A	N/A	N/A - N/A
Over 90 Days Outstanding	N/A	N/A - N/A	N/A	N/A - N/A
Total	N/A	N/A - N/A	N/A	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	N/A	N/A - N/A	N/A	N/A - N/A
31-60 Days Outstanding	N/A	N/A - N/A	N/A	N/A - N/A
61-90 Days Outstanding	N/A	N/A - N/A	N/A	N/A - N/A
Over 90 Days Outstanding	N/A	N/A - N/A	N/A	N/A - N/A
Total	N/A	N/A - N/A	N/A	N/A - N/A

PVF Firms

	Sales Under $5,000,000		Sales $5,000,000 to $12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	N/A - N/A	100.0%	100.0 - 100.0
Cost of Goods Sold	66.9%	N/A - N/A	75.9%	73.3 - 78.5
Gross Margin	33.1%	N/A - N/A	24.1%	21.6 - 26.8
Operating Expenses:				
Selling Expenses	9.8%	N/A - N/A	7.5%	5.9 - 9.4
Delivery Expenses	3.3%	N/A - N/A	2.0%	1.7 - 2.5
Warehouse Expenses	3.6%	N/A - N/A	2.2%	1.9 - 2.4
General & Administrative Expenses	13.7%	N/A - N/A	7.0%	6.0 - 6.7
Occupancy Expenses	3.9%	N/A - N/A	1.5%	1.1 - 1.7
Other Operating Expenses	0.2%	N/A - N/A	0.6%	0.0 - 0.2
Total Operating Expenses	34.6%	N/A - N/A	20.8%	18.5 - 22.9
Net Operating Profit	-1.5%	N/A - N/A	3.4%	1.8 - 4.3
Non-Operating Income	1.7%	N/A - N/A	0.7%	0.3 - 1.1
Non-Operating Expenses	1.5%	N/A - N/A	2.2%	0.9 - 2.0
Net Profit Before Tax	-1.2%	N/A - N/A	1.9%	1.2 - 3.9
Net Profit After Tax	-0.9%	-2.2 - 0.5	1.1%	0.5 - 2.8
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	34.6%	N/A - N/A	20.8%	18.5 - 22.9
Total Operating Expense to Gross Margin	106.3%	N/A - N/A	86.2%	82.2 - 92.2
Non-People Expense to Net Sales	11.9%	N/A - N/A	7.0%	5.9 - 8.3
Non-People Expense to Gross Margin	35.6%	N/A - N/A	29.7%	25.6 - 33.7
INTEREST EXPENSE				
Interest Expense to Net Sales	0.7%	0.1 - 1.9	0.7%	0.4 - 1.2
Times Interest Earned	0.0X	-21.0 - 1.0	3.1X	2.1 - 7.4
BALANCE SHEET				
Cash	3.8%	-1.1 - 7.2	2.7%	0.6 - 3.7
Accounts & Notes Receivable, Trade(Net)	31.5%	23.1 - 37.1	36.0%	30.0 - 43.7
Inventory	43.6%	33.3 - 47.4	43.2%	37.4 - 47.8
Other Current Assets	7.6%	0.5 - 4.1	1.9%	0.4 - 2.6
Total Current Assets	86.4%	87.7 - 92.5	83.9%	80.8 - 89.2
All Other Assets	13.6%	7.5 - 12.3	16.1%	10.9 - 19.2
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	31.9%	16.6 - 39.8	39.0%	28.1 - 51.1
Total Long-Term Liabilities	17.8%	0.6 - 25.6	11.4%	2.4 - 20.1
Total Liabilities	49.7%	28.2 - 68.2	50.4%	38.0 - 60.8
Total Net Worth	50.3%	31.9 - 71.8	49.6%	39.2 - 62.0
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

PVF Firms

	SALES OVER $12,000,000	
	Typical	**Middle Range**
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.0%	3.2 - 11.8
Total Assets to Net Worth	2.1X	1.8 - 3.5
Net Profit After Tax to Total Assets	3.4%	1.9 - 3.7
Net Sales to Total Assets	2.9X	2.3 - 3.4
Net Profit After Tax to Net Sales	1.1%	0.8 - 1.2
Net Profit Before Tax to Net Worth	10.5%	5.9 - 21.5
Net Profit Before Tax to Total Assets	4.9%	3.0 - 5.8
EBIT to Total Assets	7.6%	5.2 - 9.8
SALES ANALYSIS		
Net Sales($000)	$24,664	14,707 - 45,786
Percent Sales Change from Prior Year	0.0%	-6.0 - 2.6
Sales Mix:		
Direct Sales	15.0%	5.4 - 21.7
Warehouse Sales--Counter and Delivery	85.0%	78.3 - 94.6
TOTAL SALES	100.0%	100.0 - 100.0
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	4.4%	0.0 - 5.0
Heating & Cooling Supplies & Equipment	3.2%	0.0 - 2.4
P-V-F (Pipes-Valves-Fittings)	90.2%	86.0 - 100.0
Other Supplies & Equipment	1.1%	0.0 - 0.0
Other	1.1%	0.0 - 0.0
TOTAL SALES	100.0%	100.0 - 100.0
GROSS MARGIN		
Gross Margin on Net Sales	23.2%	19.1 - 24.2
Gross Margin on Direct Shipments	12.5%	10.7 - 14.4
Gross Margin on Warehouse Sales	24.8%	20.1 - 26.3
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.4X	2.6 - 3.8
Total Debt to Net Worth	124.2%	76.6 - 246.0
Current Debt to Net Worth	93.3%	40.7 - 203.1
CASH MANAGEMENT RATIOS		
Current Assets to Current Debt	2.2X	1.7 - 3.9
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.7
Net Sales to Working Capital	6.3X	4.9 - 9.0
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.4%	1.4 - 2.8
Net Profit Before Tax plus Depreciation to Total Assets	7.1%	3.8 - 8.0
Working Capital to Total Assets	46.8%	34.8 - 61.2
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.2	3.8 - 5.7
Average Invoice Size	$494	322 - 747
Average Billing Line	$112.85	70.49 - 179.04

PVF Firms

SALES OVER $12,000,000

	Typical	Middle Range
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$286,463	251,452 - 340,176
Gross Margin Per Employee	$67,741	57,835 - 72,183
Average Compensation Per Employee	$29,637	27,710 - 37,263
Average Fringe Benefits Per Employee	$6,840	4,821 - 8,793
Compensation & Fringes Per Employee	$37,231	32,830 - 47,548
Payroll to Net Sales	11.0%	9.2 - 12.5
Fringe Benefits to Net Sales	1.9%	1.7 - 2.7
Payroll & Fringes to Net Sales	13.4%	10.6 - 15.4
Payroll to Gross Margin	49.0%	45.5 - 51.8
Fringe Benefits to Gross Margin	9.8%	7.9 - 11.2
Payroll & Fringes to Gross Margin	57.9%	55.1 - 63.4
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.6X	2.8 - 4.2
% of Whse Sales from Non-Stock Items	24.0%	17.5 - 39.3
Cost of In-Stock Whse Sales/Ave Inventory	2.7X	1.8 - 3.0
No. of Days Average Inventory Carried	101 Days	88 - 133
Total Cost of Goods Sold to Ave Inventory	5.2X	4.1 - 5.8
Whse Gross Margin Return on Ave Inventory	122%	95 - 143
Turn & Earn Profitability Index	92%	72 - 108
Percent of Firms on LIFO	64.7%	N/A - N/A
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	40 - 49
Gross Margin Return on Receivables	172%	151 - 207
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.0%	58.5 - 72.8
31-60 Days Outstanding	21.1%	18.7 - 26.4
61-90 Days Outstanding	6.0%	3.3 - 8.4
Over 90 Days Outstanding	5.8%	2.5 - 8.3
Total	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$443	N/A - N/A
31-60 Days Outstanding	$376	N/A - N/A
61-90 Days Outstanding	$273	N/A - N/A
Over 90 Days Outstanding	$238	N/A - N/A
Total	$443	N/A - N/A
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	67.7%	N/A - N/A
31-60 Days Outstanding	17.5%	N/A - N/A
61-90 Days Outstanding	6.5%	N/A - N/A
Over 90 Days Outstanding	8.3%	N/A - N/A
Total	100.0%	N/A - N/A

PVF Firms

SALES OVER $12,000,000

	Typical	Middle Range
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0
Cost of Goods Sold	76.8%	75.8 - 80.9
Gross Margin	23.2%	19.1 - 24.2
Operating Expenses:		
Selling Expenses	7.6%	6.0 - 9.0
Delivery Expenses	1.9%	0.9 - 2.9
Warehouse Expenses	3.2%	2.5 - 3.3
General & Administrative Expenses	6.6%	4.6 - 7.8
Occupancy Expenses	1.8%	1.3 - 1.9
Other Operating Expenses	0.2%	0.0 - 0.0
Total Operating Expenses	21.3%	17.1 - 23.3
Net Operating Profit	2.0%	1.1 - 3.1
Non-Operating Income	1.7%	0.6 - 1.2
Non-Operating Expenses	1.9%	1.5 - 2.4
Net Profit Before Tax	1.7%	0.8 - 1.8
Net Profit After Tax	1.1%	0.8 - 1.2
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.3%	17.1 - 23.3
Total Operating Expense to Gross Margin	91.5%	87.3 - 94.8
Non-People Expense to Net Sales	7.7%	6.3 - 8.3
Non-People Expense to Gross Margin	32.7%	29.8 - 37.4
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.5 - 1.3
Times Interest Earned	3.0X	2.0 - 6.0
BALANCE SHEET		
Cash	2.8%	0.3 - 2.9
Accounts & Notes Receivable, Trade(Net)	35.6%	28.3 - 41.3
Inventory	48.1%	42.8 - 54.1
Other Current Assets	1.6%	0.6 - 2.1
Total Current Assets	88.1%	84.2 - 93.9
All Other Assets	11.9%	6.1 - 15.8
Total Assets	100.0%	100.0 - 100.0
Total Current Liabilities	41.6%	22.2 - 53.6
Total Long-Term Liabilities	13.9%	1.3 - 19.0
Total Liabilities	55.4%	43.3 - 71.1
Total Net Worth	44.6%	28.9 - 56.7
Total Liabilities & Net Worth	100.0%	100.0 - 100.0

Plumbing Supply & PVF Firms

Plumbing Supply & PVF Firms

	ALL PLUMBING & PVF FIRMS		HIGH PROFIT PLUMBING & PVF FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	4.1%	0.6 - 8.4	8.5%	6.7 - 18.9
Total Assets to Net Worth	1.9X	1.4 - 2.7	1.6X	1.3 - 2.4
Net Profit After Tax to Total Assets	2.0%	0.3 - 4.9	5.0%	3.4 - 8.5
Net Sales to Total Assets	2.5X	2.2 - 3.1	2.5X	2.2 - 3.2
Net Profit After Tax to Net Sales	0.9%	0.1 - 1.8	2.0%	1.4 - 3.8
Net Profit Before Tax to Net Worth	5.9%	0.7 - 11.7	12.7%	8.2 - 23.0
Net Profit Before Tax to Total Assets	3.2%	0.4 - 7.2	7.5%	4.5 - 10.4
EBIT to Total Assets	5.2%	1.9 - 7.9	8.0%	6.4 - 13.4
SALES ANALYSIS				
Net Sales($000)	$8,918	5,650 - 17,613	$9,060	6,087 - 20,739
Percent Sales Change from Prior Year	-2.0%	-6.9 - 2.8	0.3%	-6.3 - 2.9
Sales Mix:				
Direct Sales	9.9%	4.4 - 13.4	11.9%	4.6 - 15.8
Warehouse Sales--Counter and Delivery	90.1%	86.7 - 95.6	88.1%	84.2 - 95.4
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	42.4%	39.1 - 50.0	42.0%	38.5 - 49.0
Heating & Cooling Supplies & Equipment	22.2%	12.5 - 31.7	21.8%	9.0 - 31.7
P-V-F (Pipes-Valves-Fittings)	23.7%	12.0 - 31.0	25.1%	12.0 - 34.0
Other Supplies & Equipment	7.5%	0.0 - 10.2	7.0%	0.0 - 11.0
Other	4.2%	0.0 - 9.6	4.2%	0.0 - 9.6
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	25.6%	23.7 - 27.7	26.0%	24.1 - 28.4
Gross Margin on Direct Shipments	12.0%	10.0 - 15.6	12.4%	10.3 - 14.9
Gross Margin on Warehouse Sales	27.5%	24.5 - 29.4	27.9%	26.3 - 29.4
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.9X	2.5 - 3.4	2.8X	2.5 - 3.6
Total Debt to Net Worth	85.7%	40.5 - 162.6	71.5%	28.0 - 130.1
Current Debt to Net Worth	64.2%	35.4 - 118.4	42.2%	24.7 - 90.0
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.9X	1.9 - 4.2	3.3X	1.9 - 4.8
Current Assets Minus Inventory/Curr Debt	1.3X	0.9 - 2.0	1.5X	1.0 - 2.5
Net Sales to Working Capital	4.1X	3.3 - 7.5	3.9X	3.0 - 7.5
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.3%	0.6 - 2.9	4.3%	2.6 - 4.6
Net Profit Before Tax plus Depreciation to Total Assets	5.4%	1.5 - 8.0	10.4%	6.2 - 11.2
Working Capital to Total Assets	54.4%	41.0 - 70.2	56.8%	44.8 - 70.2
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	4.5	4.0 - 6.8	4.0	3.9 - 5.8
Average Invoice Size	$173	129 - 227	$219	150 - 233
Average Billing Line	$36.81	26.90 - 57.20	$39.93	30.10 - 55.09

Plumbing Supply & PVF Firms

	All Plumbing & PVF Firms		High Profit Plumbing & PVF Firms	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$212,338	188,658 - 246,321	$235,527	202,173 - 259,913
Gross Margin Per Employee	$55,654	49,166 - 62,383	$60,041	53,564 - 67,931
Average Compensation Per Employee	$29,081	25,539 - 30,905	$30,645	27,836 - 31,836
Average Fringe Benefits Per Employee	$5,652	4,832 - 6,691	$6,182	5,206 - 7,460
Compensation & Fringes Per Employee	$34,884	31,101 - 37,740	$36,633	34,466 - 39,892
Payroll to Net Sales	13.4%	11.4 - 15.5	12.8%	11.5 - 14.9
Fringe Benefits to Net Sales	2.7%	2.2 - 3.1	2.8%	2.5 - 3.3
Payroll & Fringes to Net Sales	16.2%	13.9 - 18.2	16.0%	14.2 - 17.4
Payroll to Gross Margin	53.6%	49.1 - 57.4	51.4%	48.2 - 54.4
Fringe Benefits to Gross Margin	10.5%	9.2 - 12.0	10.9%	9.3 - 12.6
Payroll & Fringes to Gross Margin	64.2%	58.1 - 68.9	63.8%	58.9 - 66.2
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.8X	2.8 - 4.3	3.7X	2.8 - 4.2
% of Whse Sales from Non-Stock Items	13.0%	10.0 - 23.5	24.0%	10.0 - 30.8
Cost of In-Stock Whse Sales/Ave Inventory	3.1X	2.2 - 3.5	2.8X	2.2 - 3.1
No. of Days Average Inventory Carried	97 Days	85 - 131	98 Days	87 - 134
Total Cost of Goods Sold to Ave Inventory	4.4X	3.3 - 5.1	4.5X	3.6 - 5.4
Whse Gross Margin Return on Ave Inventory	128%	105 - 172	136%	103 - 186
Turn & Earn Profitability Index	96%	79 - 123	97%	81 - 114
Percent of Firms on LIFO	48.9%	N/A - N/A	65.2%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	53 Days	45 - 67	48 Days	43 - 56
Gross Margin Return on Receivables	160%	127 - 204	192%	151 - 221
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	57.8%	48.2 - 67.8	60.6%	52.0 - 69.5
31-60 Days Outstanding	18.7%	14.3 - 22.2	19.4%	15.9 - 22.8
61-90 Days Outstanding	9.4%	6.0 - 11.7	9.7%	5.2 - 12.3
Over 90 Days Outstanding	14.1%	6.5 - 20.0	10.3%	5.2 - 11.3
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$745	205 - 1,358	$190	N/A - N/A
31-60 Days Outstanding	$1,239	168 - 1,945	$199	N/A - N/A
61-90 Days Outstanding	$508	190 - 3,075	$194	N/A - N/A
Over 90 Days Outstanding	$1,747	130 - 4,942	$191	N/A - N/A
Total	$982	185 - 1,851	$191	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	66.0%	60.5 - 73.9	73.8%	N/A - N/A
31-60 Days Outstanding	17.3%	12.3 - 18.2	13.3%	N/A - N/A
61-90 Days Outstanding	6.1%	4.7 - 6.7	4.9%	N/A - N/A
Over 90 Days Outstanding	10.6%	8.2 - 12.4	8.0%	N/A - N/A
Total	100.0%	100.0 - 100.0	100.0%	N/A - N/A

Plumbing Supply & PVF Firms

	ALL PLUMBING & PVF FIRMS		HIGH PROFIT PLUMBING & PVF FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	74.4%	72.3 - 76.3	74.0%	71.6 - 75.9
Gross Margin	25.6%	23.7 - 27.7	26.0%	24.1 - 28.4
Operating Expenses:				
Selling Expenses	7.2%	5.9 - 8.5	7.4%	7.0 - 8.4
Delivery Expenses	2.0%	1.3 - 2.4	2.0%	1.4 - 2.4
Warehouse Expenses	3.1%	2.2 - 3.7	3.3%	2.2 - 3.8
General & Administrative Expenses	9.7%	7.1 - 11.3	8.6%	6.4 - 9.6
Occupancy Expenses	2.6%	1.3 - 3.6	1.9%	1.2 - 2.3
Other Operating Expenses	0.2%	0.0 - 0.0	0.2%	0.0 - 0.0
Total Operating Expenses	24.7%	22.7 - 28.0	23.4%	22.3 - 23.7
Net Operating Profit	0.9%	-0.6 - 2.1	2.6%	1.6 - 3.4
Non-Operating Income	2.2%	1.5 - 2.8	2.2%	1.2 - 3.2
Non-Operating Expenses	1.7%	1.2 - 2.1	1.8%	0.6 - 1.7
Net Profit Before Tax	1.3%	-0.0 - 2.3	3.0%	2.1 - 4.1
Net Profit After Tax	0.9%	0.1 - 1.8	2.0%	1.4 - 3.8
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	24.7%	22.7 - 28.0	23.4%	22.3 - 23.7
Total Operating Expense to Gross Margin	96.7%	90.8 - 103.0	90.2%	87.0 - 93.5
Non-People Expense to Net Sales	8.7%	6.9 - 9.9	7.7%	6.4 - 8.9
Non-People Expense to Gross Margin	34.1%	29.2 - 38.1	29.5%	25.9 - 34.3
INTEREST EXPENSE				
Interest Expense to Net Sales	0.6%	0.2 - 1.2	0.3%	0.0 - 0.9
Times Interest Earned	3.0X	1.0 - 10.0	10.0X	4.0 - 670.0
BALANCE SHEET				
Cash	5.9%	0.5 - 6.0	9.0%	1.4 - 10.9
Accounts & Notes Receivable, Trade(Net)	35.6%	27.1 - 41.4	33.8%	25.1 - 40.5
Inventory	45.4%	40.3 - 52.8	44.2%	38.7 - 51.8
Other Current Assets	1.9%	0.2 - 2.1	2.1%	0.3 - 2.5
Total Current Assets	88.8%	84.0 - 93.9	89.1%	84.2 - 95.7
All Other Assets	11.2%	6.1 - 16.0	10.9%	4.4 - 15.8
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	34.6%	22.3 - 47.0	32.0%	19.7 - 44.5
Total Long-Term Liabilities	11.5%	0.2 - 15.9	9.8%	0.0 - 11.1
Total Liabilities	46.1%	28.8 - 61.9	41.7%	21.8 - 56.5
Total Net Worth	53.9%	38.1 - 71.2	58.3%	43.5 - 78.2
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

Plumbing Supply & PVF Firms

	Sales Under $5,000,000		Sales $5,000,000 to $9,000,000	
	Typical	Middle Range	Typical	Middle Range
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	2.5%	1.0 - 7.6	3.4%	-0.7 - 21.4
Total Assets to Net Worth	1.5X	1.2 - 2.0	2.0X	1.4 - 3.8
Net Profit After Tax to Total Assets	1.8%	0.7 - 3.8	1.7%	-0.3 - 5.8
Net Sales to Total Assets	2.2X	1.9 - 2.4	2.6X	2.3 - 3.2
Net Profit After Tax to Net Sales	0.8%	0.3 - 1.8	0.7%	-0.1 - 1.8
Net Profit Before Tax to Net Worth	3.3%	1.4 - 8.5	5.5%	-0.6 - 26.5
Net Profit Before Tax to Total Assets	2.3%	0.9 - 4.6	2.9%	-0.2 - 8.9
EBIT to Total Assets	5.2%	1.5 - 6.8	4.7%	1.5 - 13.4
SALES ANALYSIS				
Net Sales($000)	$3,689	3,302 - 4,621	$6,438	5,650 - 7,425
Percent Sales Change from Prior Year	-2.1%	-9.0 - 3.9	-2.8%	-5.1 - 1.4
Sales Mix:				
Direct Sales	10.4%	N/A - N/A	8.5%	3.7 - 13.0
Warehouse Sales--Counter and Delivery	89.6%	N/A - N/A	91.5%	87.0 - 95.8
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	44.8%	40.0 - 50.0	42.3%	40.0 - 50.0
Heating & Cooling Supplies & Equipment	18.2%	15.0 - 25.0	22.2%	10.0 - 35.0
P-V-F (Pipes-Valves-Fittings)	26.0%	15.0 - 35.0	22.2%	10.0 - 30.0
Other Supplies & Equipment	7.6%	0.0 - 11.0	9.7%	0.0 - 15.0
Other	3.4%	0.0 - 0.0	3.6%	0.0 - 7.5
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	25.5%	N/A - N/A	26.8%	25.3 - 29.6
Gross Margin on Direct Shipments	N/A	N/A - N/A	15.8%	10.6 - 26.2
Gross Margin on Warehouse Sales	29.1%	N/A - N/A	28.5%	26.5 - 29.7
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.5X	2.0 - 2.6	2.9X	2.5 - 3.6
Total Debt to Net Worth	48.1%	24.2 - 98.4	102.8%	43.5 - 279.9
Current Debt to Net Worth	41.4%	24.2 - 46.9	82.4%	40.7 - 222.1
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	3.2X	2.8 - 4.9	2.2X	1.6 - 4.1
Current Assets Minus Inventory/Curr Debt	1.4X	1.3 - 2.5	1.0X	0.7 - 2.0
Net Sales to Working Capital	3.0X	N/A - N/A	4.3X	3.3 - 10.7
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.0%	N/A - N/A	2.8%	0.3 - 3.6
Net Profit Before Tax plus Depreciation to Total Assets	3.9%	N/A - N/A	6.7%	0.6 - 10.3
Working Capital to Total Assets	66.5%	N/A - N/A	49.5%	27.9 - 70.1
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	N/A	N/A - N/A	6.9	4.0 - 7.3
Average Invoice Size	$121	N/A - N/A	$190	137 - 227
Average Billing Line	N/A	N/A - N/A	$30.46	20.67 - 46.80

Plumbing Supply & PVF Firms

	Sales Under $5,000,000		Sales $5,000,000 to $9,000,000	
	Typical	Middle Range	Typical	Middle Range
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$182,185	176,363 - 201,977	$194,612	178,460 - 212,378
Gross Margin Per Employee	$50,985	42,213 - 54,606	$53,467	45,882 - 60,578
Average Compensation Per Employee	$29,726	23,478 - 30,327	$28,777	25,594 - 30,411
Average Fringe Benefits Per Employee	$5,652	4,910 - 6,273	$5,551	4,556 - 6,899
Compensation & Fringes Per Employee	$35,170	28,237 - 37,172	$34,132	31,535 - 37,486
Payroll to Net Sales	14.3%	13.1 - 16.8	14.3%	11.8 - 16.4
Fringe Benefits to Net Sales	2.9%	2.3 - 3.3	2.7%	2.4 - 3.6
Payroll & Fringes to Net Sales	17.7%	15.6 - 20.1	17.2%	14.3 - 18.8
Payroll to Gross Margin	55.5%	50.6 - 59.4	54.3%	46.4 - 59.0
Fringe Benefits to Gross Margin	10.8%	10.0 - 12.5	10.2%	8.2 - 12.1
Payroll & Fringes to Gross Margin	68.1%	63.4 - 69.7	63.2%	56.7 - 71.1
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	2.5X	N/A - N/A	3.9X	3.0 - 5.0
% of Whse Sales from Non-Stock Items	15.0%	N/A - N/A	21.5%	N/A - N/A
Cost of In-Stock Whse Sales/Ave Inventory	N/A	N/A - N/A	3.2X	N/A - N/A
No. of Days Average Inventory Carried	149 Days	N/A - N/A	94 Days	72 - 121
Total Cost of Goods Sold to Ave Inventory	3.5X	2.8 - 3.9	4.6X	3.4 - 5.8
Whse Gross Margin Return on Ave Inventory	101%	N/A - N/A	141%	120 - 205
Turn & Earn Profitability Index	82%	N/A - N/A	102%	83 - 148
Percent of Firms on LIFO	50.0%	N/A - N/A	31.3%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	63 Days	N/A - N/A	47 Days	42 - 60
Gross Margin Return on Receivables	132%	N/A - N/A	179%	153 - 247
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	50.6%	41.2 - 59.3	61.1%	48.3 - 77.9
31-60 Days Outstanding	19.1%	15.4 - 22.8	16.1%	14.2 - 18.5
61-90 Days Outstanding	9.3%	5.5 - 7.4	9.8%	6.8 - 12.8
Over 90 Days Outstanding	21.1%	11.1 - 30.1	13.0%	5.3 - 18.6
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	N/A	N/A - N/A	$519	N/A - N/A
31-60 Days Outstanding	N/A	N/A - N/A	$773	N/A - N/A
61-90 Days Outstanding	N/A	N/A - N/A	$1,939	N/A - N/A
Over 90 Days Outstanding	N/A	N/A - N/A	$935	N/A - N/A
Total	N/A	N/A - N/A	$651	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	N/A	N/A - N/A	67.2%	N/A - N/A
31-60 Days Outstanding	N/A	N/A - N/A	13.8%	N/A - N/A
61-90 Days Outstanding	N/A	N/A - N/A	6.5%	N/A - N/A
Over 90 Days Outstanding	N/A	N/A - N/A	12.5%	N/A - N/A
Total	N/A	N/A - N/A	100.0%	N/A - N/A

Plumbing Supply & PVF Firms

	Sales Under $5,000,000		Sales $5,000,000 to $9,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	N/A - N/A	100.0%	100.0 - 100.0
Cost of Goods Sold	74.5%	N/A - N/A	73.2%	70.4 - 74.7
Gross Margin	25.5%	N/A - N/A	26.8%	25.3 - 29.6
Operating Expenses:				
Selling Expenses	7.4%	N/A - N/A	7.5%	5.3 - 9.4
Delivery Expenses	1.7%	N/A - N/A	2.0%	1.2 - 2.7
Warehouse Expenses	2.8%	N/A - N/A	3.2%	2.4 - 3.6
General & Administrative Expenses	10.9%	N/A - N/A	10.4%	7.1 - 12.4
Occupancy Expenses	1.6%	N/A - N/A	2.4%	1.2 - 3.0
Other Operating Expenses	0.7%	N/A - N/A	0.1%	0.0 - 0.0
Total Operating Expenses	25.1%	N/A - N/A	25.6%	23.7 - 28.1
Net Operating Profit	0.4%	N/A - N/A	1.3%	-0.1 - 2.9
Non-Operating Income	1.8%	N/A - N/A	1.7%	1.5 - 2.7
Non-Operating Expenses	1.0%	N/A - N/A	1.8%	1.3 - 2.1
Net Profit Before Tax	1.1%	N/A - N/A	1.1%	-0.3 - 2.3
Net Profit After Tax	0.8%	0.3 - 1.8	0.7%	-0.1 - 1.8
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	25.1%	N/A - N/A	25.6%	23.7 - 28.1
Total Operating Expense to Gross Margin	98.4%	N/A - N/A	95.8%	89.7 - 100.2
Non-People Expense to Net Sales	7.7%	N/A - N/A	8.6%	7.4 - 9.1
Non-People Expense to Gross Margin	30.0%	N/A - N/A	32.2%	27.8 - 36.9
INTEREST EXPENSE				
Interest Expense to Net Sales	0.6%	0.0 - 1.4	0.4%	0.2 - 0.9
Times Interest Earned	3.0X	2.0 - 13300001.0	3.0X	1.0 - 9.0
BALANCE SHEET				
Cash	8.6%	0.9 - 13.3	5.3%	0.5 - 4.6
Accounts & Notes Receivable, Trade(Net)	29.7%	24.6 - 35.4	37.2%	23.9 - 42.7
Inventory	47.9%	45.0 - 52.0	45.3%	40.7 - 53.1
Other Current Assets	3.9%	0.4 - 6.3	1.6%	0.2 - 2.5
Total Current Assets	90.1%	88.1 - 93.9	89.3%	84.8 - 95.1
All Other Assets	9.9%	6.1 - 11.9	10.7%	4.9 - 15.2
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	24.3%	19.5 - 31.6	39.8%	23.2 - 53.1
Total Long-Term Liabilities	9.4%	0.0 - 16.5	11.9%	0.5 - 23.5
Total Liabilities	33.7%	19.5 - 49.6	51.7%	30.3 - 73.5
Total Net Worth	66.3%	50.4 - 80.5	48.3%	26.5 - 69.7
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

Plumbing Supply & PVF Firms

SALES OVER $9,000,000

	Typical	Middle Range
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	4.2%	0.7 - 9.3
Total Assets to Net Worth	1.9X	1.5 - 2.8
Net Profit After Tax to Total Assets	2.3%	0.3 - 4.7
Net Sales to Total Assets	2.5X	2.2 - 3.1
Net Profit After Tax to Net Sales	1.0%	0.1 - 1.7
Net Profit Before Tax to Net Worth	6.6%	1.0 - 14.0
Net Profit Before Tax to Total Assets	3.4%	0.4 - 7.3
EBIT to Total Assets	5.9%	2.0 - 8.6
SALES ANALYSIS		
Net Sales($000)	$17,991	13,285 - 32,629
Percent Sales Change from Prior Year	-2.0%	-7.3 - 4.0
Sales Mix:		
Direct Sales	10.5%	5.3 - 13.1
Warehouse Sales--Counter and Delivery	89.5%	87.0 - 94.7
TOTAL SALES	100.0%	100.0 - 100.0
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	41.6%	36.0 - 47.8
Heating & Cooling Supplies & Equipment	23.6%	19.0 - 34.0
P-V-F (Pipes-Valves-Fittings)	24.0%	12.0 - 32.5
Other Supplies & Equipment	5.9%	0.0 - 10.0
Other	4.9%	0.0 - 9.6
TOTAL SALES	100.0%	100.0 - 100.0
GROSS MARGIN		
Gross Margin on Net Sales	24.9%	23.4 - 26.9
Gross Margin on Direct Shipments	12.0%	10.0 - 14.3
Gross Margin on Warehouse Sales	27.0%	24.3 - 28.4
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.9X	2.6 - 3.5
Total Debt to Net Worth	90.7%	45.2 - 169.5
Current Debt to Net Worth	66.5%	35.4 - 108.9
CASH MANAGEMENT RATIOS		
Current Assets to Current Debt	2.7X	1.9 - 3.8
Current Assets Minus Inventory/Curr Debt	1.2X	1.0 - 1.9
Net Sales to Working Capital	4.3X	3.5 - 6.9
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.1%	1.2 - 2.7
Net Profit Before Tax plus Depreciation to Total Assets	4.9%	3.1 - 7.3
Working Capital to Total Assets	54.5%	43.8 - 69.7
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.0	4.0 - 5.1
Average Invoice Size	$181	161 - 237
Average Billing Line	$42.34	33.04 - 60.22

Plumbing Supply & PVF Firms

SALES OVER $9,000,000

	Typical	Middle Range
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$236,667	203,671 - 247,567
Gross Margin Per Employee	$57,314	52,826 - 63,062
Average Compensation Per Employee	$29,081	25,704 - 31,284
Average Fringe Benefits Per Employee	$5,808	5,114 - 6,566
Compensation & Fringes Per Employee	$35,894	31,964 - 39,142
Payroll to Net Sales	12.6%	11.0 - 13.9
Fringe Benefits to Net Sales	2.6%	2.2 - 3.0
Payroll & Fringes to Net Sales	15.9%	13.2 - 17.0
Payroll to Gross Margin	51.7%	49.8 - 54.8
Fringe Benefits to Gross Margin	10.5%	9.2 - 11.7
Payroll & Fringes to Gross Margin	64.0%	57.9 - 66.4
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.7X	3.0 - 4.3
% of Whse Sales from Non-Stock Items	13.0%	10.0 - 20.0
Cost of In-Stock Whse Sales/Ave Inventory	3.2X	2.5 - 3.4
No. of Days Average Inventory Carried	98 Days	86 - 123
Total Cost of Goods Sold to Ave Inventory	4.5X	3.7 - 5.1
Whse Gross Margin Return on Ave Inventory	124%	106 - 159
Turn & Earn Profitability Index	95%	79 - 103
Percent of Firms on LIFO	60.9%	N/A - N/A
ACCOUNTS RECEIVABLE		
Average Collection Period	54 Days	47 - 66
Gross Margin Return on Receivables	160%	124 - 193
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	57.7%	48.9 - 66.0
31-60 Days Outstanding	20.3%	18.2 - 23.9
61-90 Days Outstanding	9.2%	5.7 - 11.5
Over 90 Days Outstanding	12.8%	6.6 - 17.7
Total	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	$1,055	N/A - N/A
31-60 Days Outstanding	$749	N/A - N/A
61-90 Days Outstanding	$1,382	N/A - N/A
Over 90 Days Outstanding	$2,257	N/A - N/A
Total	$1,181	N/A - N/A
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	60.9%	N/A - N/A
31-60 Days Outstanding	24.2%	N/A - N/A
61-90 Days Outstanding	4.7%	N/A - N/A
Over 90 Days Outstanding	10.2%	N/A - N/A
Total	100.0%	N/A - N/A

Plumbing Supply & PVF Firms

SALES OVER $9,000,000

	Typical	Middle Range
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0
Cost of Goods Sold	75.1%	73.1 - 76.6
Gross Margin	24.9%	23.4 - 26.9
Operating Expenses:		
Selling Expenses	7.0%	6.0 - 7.9
Delivery Expenses	2.0%	1.4 - 2.5
Warehouse Expenses	3.1%	2.5 - 3.9
General & Administrative Expenses	9.0%	7.1 - 10.4
Occupancy Expenses	3.0%	1.6 - 3.7
Other Operating Expenses	0.1%	0.0 - 0.0
Total Operating Expenses	24.2%	22.1 - 25.6
Net Operating Profit	0.8%	-0.8 - 2.0
Non-Operating Income	2.4%	1.5 - 2.9
Non-Operating Expenses	1.9%	1.3 - 2.1
Net Profit Before Tax	1.3%	0.2 - 2.2
Net Profit After Tax	1.0%	0.1 - 1.7
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.2%	22.1 - 25.6
Total Operating Expense to Gross Margin	96.9%	91.3 - 103.0
Non-People Expense to Net Sales	9.1%	7.1 - 10.4
Non-People Expense to Gross Margin	36.3%	30.5 - 40.8
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.2 - 1.1
Times Interest Earned	2.0X	1.0 - 10.0
BALANCE SHEET		
Cash	5.4%	1.0 - 4.8
Accounts & Notes Receivable, Trade(Net)	36.4%	29.5 - 41.6
Inventory	44.6%	38.3 - 52.4
Other Current Assets	1.5%	0.3 - 1.6
Total Current Assets	87.9%	83.0 - 92.9
All Other Assets	12.1%	7.1 - 17.0
Total Assets	100.0%	100.0 - 100.0
Total Current Liabilities	34.3%	23.5 - 46.6
Total Long-Term Liabilities	12.0%	1.0 - 11.5
Total Liabilities	46.3%	31.1 - 62.8
Total Net Worth	53.7%	37.2 - 68.9
Total Liabilities & Net Worth	100.0%	100.0 - 100.0

HVAC & Other Firms

HVAC & Other Firms

	ALL HVAC FIRMS		HIGH PROFIT HVAC & OTHER FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	4.9%	1.5 - 8.3	7.9%	6.3 - 12.4
Total Assets to Net Worth	1.8X	1.4 - 2.6	1.5X	1.3 - 2.2
Net Profit After Tax to Total Assets	2.7%	0.8 - 4.8	4.8%	3.8 - 7.6
Net Sales to Total Assets	2.3X	1.9 - 3.0	2.4X	2.0 - 3.2
Net Profit After Tax to Net Sales	1.1%	0.3 - 1.8	2.0%	1.3 - 3.9
Net Profit Before Tax to Net Worth	6.8%	2.4 - 11.3	11.3%	8.6 - 19.8
Net Profit Before Tax to Total Assets	3.7%	1.1 - 6.4	6.6%	5.2 - 10.2
EBIT to Total Assets	6.0%	2.8 - 8.8	8.8%	6.4 - 10.7
SALES ANALYSIS				
Net Sales($000)	$8,993	5,402 - 20,049	$9,037	7,236 - 20,940
Percent Sales Change from Prior Year	-4.1%	-9.8 - 2.1	-2.7%	-6.8 - 2.4
Sales Mix:				
Direct Sales	11.7%	2.2 - 12.3	12.9%	3.0 - 11.8
Warehouse Sales--Counter and Delivery	88.3%	87.7 - 97.7	87.1%	88.2 - 97.0
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	27.9%	19.5 - 40.0	26.6%	16.5 - 40.0
Heating & Cooling Supplies & Equipment	24.2%	5.0 - 36.3	17.8%	0.0 - 30.8
P-V-F (Pipes-Valves-Fittings)	7.8%	0.0 - 10.0	9.2%	1.5 - 10.0
Other Supplies & Equipment	16.4%	1.5 - 22.8	16.9%	2.8 - 10.3
Other	23.8%	0.0 - 46.0	29.5%	13.8 - 49.3
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	25.5%	23.1 - 28.3	27.3%	24.4 - 29.5
Gross Margin on Direct Shipments	17.2%	10.3 - 21.6	19.6%	10.8 - 27.3
Gross Margin on Warehouse Sales	25.7%	24.0 - 29.2	28.5%	25.0 - 30.6
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.9X	2.4 - 3.4	2.9X	2.4 - 3.8
Total Debt to Net Worth	80.4%	35.5 - 157.0	59.5%	26.9 - 100.3
Current Debt to Net Worth	61.7%	28.9 - 121.1	37.9%	22.6 - 80.6
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.6X	1.7 - 3.9	2.9X	2.1 - 4.6
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.4	1.3X	0.9 - 1.8
Net Sales to Working Capital	4.2X	3.4 - 6.5	4.0X	3.2 - 5.1
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.8%	1.0 - 3.7	4.9%	3.3 - 6.6
Net Profit Before Tax plus Depreciation to Total Assets	6.2%	3.3 - 10.4	10.7%	8.1 - 12.3
Working Capital to Total Assets	50.0%	37.2 - 61.7	57.5%	49.3 - 70.7
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	4.0	3.1 - 5.0	4.0	3.0 - 5.0
Average Invoice Size	$174	122 - 253	$194	121 - 251
Average Billing Line	$42.20	31.30 - 59.21	$38.66	30.55 - 60.83

HVAC & Other Firms

	ALL HVAC FIRMS		HIGH PROFIT HVAC & OTHER FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$208,205	173,513 - 243,063	$210,108	175,535 - 233,944
Gross Margin Per Employee	$51,325	44,353 - 59,578	$52,153	47,185 - 59,162
Average Compensation Per Employee	$26,053	23,944 - 29,106	$26,094	24,762 - 28,475
Average Fringe Benefits Per Employee	$4,851	3,657 - 5,894	$5,114	4,129 - 5,894
Compensation & Fringes Per Employee	$30,819	27,662 - 34,204	$30,974	28,564 - 34,075
Payroll to Net Sales	12.5%	11.4 - 14.1	12.5%	11.6 - 14.0
Fringe Benefits to Net Sales	2.4%	1.8 - 3.0	2.4%	1.9 - 3.3
Payroll & Fringes to Net Sales	14.7%	13.3 - 16.9	14.8%	13.8 - 17.2
Payroll to Gross Margin	50.9%	46.8 - 54.9	49.2%	46.0 - 52.6
Fringe Benefits to Gross Margin	9.7%	8.0 - 11.6	9.8%	7.8 - 11.2
Payroll & Fringes to Gross Margin	61.4%	55.2 - 66.3	58.0%	54.0 - 63.1
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.1X	2.7 - 3.7	3.2X	2.7 - 4.7
% of Whse Sales from Non-Stock Items	15.0%	4.9 - 24.5	18.6%	8.1 - 25.0
Cost of In-Stock Whse Sales/Ave Inventory	2.4X	2.0 - 2.9	2.3X	2.1 - 2.9
No. of Days Average Inventory Carried	119 Days	99 - 136	116 Days	78 - 135
Total Cost of Goods Sold to Ave Inventory	3.4X	2.8 - 4.9	3.7X	2.8 - 5.2
Whse Gross Margin Return on Ave Inventory	104%	89 - 132	124%	105 - 168
Turn & Earn Profitability Index	75%	65 - 91	86%	68 - 107
Percent of Firms on LIFO	50.9%	N/A - N/A	55.6%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	44 Days	39 - 55	44 Days	39 - 57
Gross Margin Return on Receivables	205%	181 - 231	216%	179 - 254
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	66.1%	57.3 - 78.0	66.5%	56.9 - 80.4
31-60 Days Outstanding	15.5%	9.6 - 20.5	15.1%	8.1 - 19.7
61-90 Days Outstanding	6.6%	4.8 - 8.6	6.8%	5.0 - 8.5
Over 90 Days Outstanding	11.8%	4.7 - 14.2	11.6%	4.3 - 14.4
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$182	126 - 1,121	$200	N/A - N/A
31-60 Days Outstanding	$254	192 - 2,498	$224	N/A - N/A
61-90 Days Outstanding	$213	127 - 794	$225	N/A - N/A
Over 90 Days Outstanding	$191	126 - 1,938	$200	N/A - N/A
Total	$181	131 - 1,278	$171	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	71.3%	66.4 - 79.2	77.0%	N/A - N/A
31-60 Days Outstanding	12.9%	9.0 - 16.0	11.4%	N/A - N/A
61-90 Days Outstanding	5.3%	4.2 - 6.5	4.8%	N/A - N/A
Over 90 Days Outstanding	10.5%	4.2 - 10.5	6.9%	N/A - N/A
Total	100.0%	100.0 - 100.0	100.0%	N/A - N/A

HVAC & Other Firms

	ALL HVAC FIRMS		HIGH PROFIT HVAC & OTHER FIRMS	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	74.5%	71.7 - 76.9	72.7%	70.5 - 75.6
Gross Margin	25.5%	23.1 - 28.3	27.3%	24.4 - 29.5
Operating Expenses:				
Selling Expenses	7.6%	5.2 - 9.5	7.2%	5.1 - 8.4
Delivery Expenses	1.9%	1.3 - 2.4	2.0%	1.4 - 2.4
Warehouse Expenses	2.8%	1.5 - 3.8	2.7%	1.3 - 3.8
General & Administrative Expenses	9.8%	7.0 - 11.8	10.5%	7.2 - 13.2
Occupancy Expenses	2.3%	1.5 - 2.6	2.5%	1.8 - 3.1
Other Operating Expenses	0.2%	0.0 - 0.0	0.1%	0.0 - 0.0
Total Operating Expenses	24.5%	21.3 - 26.6	24.8%	21.2 - 28.0
Net Operating Profit	1.0%	-0.5 - 2.7	2.5%	0.8 - 4.4
Non-Operating Income	2.1%	1.3 - 2.9	1.5%	1.5 - 3.2
Non-Operating Expenses	1.5%	0.6 - 2.4	1.3%	0.4 - 1.5
Net Profit Before Tax	1.6%	0.4 - 2.9	2.8%	2.2 - 4.6
Net Profit After Tax	1.1%	0.3 - 1.8	2.0%	1.3 - 3.9
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	24.5%	21.3 - 26.6	24.8%	21.2 - 28.0
Total Operating Expense to Gross Margin	96.7%	90.3 - 102.1	91.1%	85.2 - 96.8
Non-People Expense to Net Sales	8.8%	7.3 - 10.0	8.4%	6.9 - 10.2
Non-People Expense to Gross Margin	35.1%	28.2 - 39.3	31.1%	25.0 - 37.4
INTEREST EXPENSE				
Interest Expense to Net Sales	0.7%	0.3 - 1.2	0.4%	0.2 - 0.8
Times Interest Earned	3.0X	2.0 - 9.0	8.0X	4.0 - 25.0
BALANCE SHEET				
Cash	4.8%	0.8 - 4.2	6.3%	0.6 - 5.8
Accounts & Notes Receivable, Trade(Net)	28.0%	22.6 - 32.1	28.8%	22.6 - 35.8
Inventory	49.5%	43.6 - 55.2	47.8%	43.7 - 54.7
Other Current Assets	2.9%	0.2 - 3.7	2.9%	0.1 - 3.2
Total Current Assets	85.3%	79.6 - 91.8	85.8%	79.1 - 91.6
All Other Assets	14.7%	8.2 - 20.4	14.2%	8.4 - 20.9
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	35.7%	21.6 - 49.1	29.7%	18.2 - 40.4
Total Long-Term Liabilities	9.4%	2.5 - 13.9	7.6%	0.5 - 11.1
Total Liabilities	45.2%	26.2 - 61.3	37.3%	21.2 - 50.1
Total Net Worth	54.8%	38.7 - 73.8	62.7%	49.9 - 78.8
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

HVAC & Other Firms

	Sales Under $6,000,000		Sales $6,000,000 to 12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	3.4%	-1.3 - 6.2	6.0%	1.5 - 8.4
Total Assets to Net Worth	1.7X	1.4 - 2.6	1.7X	1.4 - 2.0
Net Profit After Tax to Total Assets	2.6%	-0.3 - 3.7	3.7%	1.0 - 6.0
Net Sales to Total Assets	2.1X	1.8 - 2.6	2.3X	1.9 - 3.0
Net Profit After Tax to Net Sales	1.1%	-0.1 - 1.9	1.6%	0.4 - 2.1
Net Profit Before Tax to Net Worth	4.5%	-0.6 - 7.4	8.0%	2.5 - 11.2
Net Profit Before Tax to Total Assets	3.0%	-0.2 - 4.2	5.0%	1.5 - 9.1
EBIT to Total Assets	4.9%	2.8 - 6.3	6.8%	3.0 - 10.3
SALES ANALYSIS				
Net Sales($000)	$3,489	2,672 - 5,129	$8,021	7,312 - 9,076
Percent Sales Change from Prior Year	-4.2%	-19.8 - -1.8	-4.0%	-7.0 - 2.8
Sales Mix:				
Direct Sales	5.4%	1.3 - 9.9	9.9%	1.9 - 12.6
Warehouse Sales--Counter and Delivery	94.6%	90.1 - 98.7	90.1%	87.4 - 98.1
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	31.3%	24.5 - 41.3	25.7%	20.0 - 38.0
Heating & Cooling Supplies & Equipment	38.0%	18.8 - 53.8	14.6%	2.0 - 17.3
P-V-F (Pipes-Valves-Fittings)	6.4%	0.8 - 10.0	11.1%	1.0 - 21.3
Other Supplies & Equipment	5.8%	0.0 - 10.0	27.2%	6.3 - 39.8
Other	18.4%	0.0 - 31.8	21.3%	2.5 - 28.3
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	25.6%	22.1 - 27.5	26.8%	23.6 - 29.6
Gross Margin on Direct Shipments	17.3%	10.5 - 22.7	19.2%	16.2 - 24.5
Gross Margin on Warehouse Sales	26.8%	22.0 - 28.2	27.1%	24.0 - 31.1
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.6X	1.9 - 2.9	2.8X	2.3 - 3.5
Total Debt to Net Worth	78.3%	36.1 - 160.0	63.0%	35.6 - 97.9
Current Debt to Net Worth	59.5%	31.0 - 123.2	47.2%	26.6 - 73.6
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.5X	1.8 - 3.8	3.0X	2.3 - 4.2
Current Assets Minus Inventory/Curr Debt	1.0X	0.7 - 1.4	1.2X	0.9 - 1.5
Net Sales to Working Capital	4.2X	3.2 - 6.4	4.2X	3.2 - 5.6
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.9%	1.0 - 3.4	3.7%	2.1 - 4.3
Net Profit Before Tax plus Depreciation to Total Assets	5.6%	1.9 - 7.7	8.1%	4.7 - 11.4
Working Capital to Total Assets	51.3%	34.0 - 69.7	55.1%	46.3 - 64.9
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	4.2	3.3 - 4.9	3.7	3.2 - 5.0
Average Invoice Size	$126	101 - 273	$150	116 - 222
Average Billing Line	$39.64	26.97 - 41.09	$36.81	30.21 - 59.71

HVAC & Other Firms

	Sales Under $6,000,000		Sales $6,000,000 to 12,000,000	
	Typical	Middle Range	Typical	Middle Range
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$187,888	154,179 - 213,013	$204,567	157,122 - 221,909
Gross Margin Per Employee	$52,550	44,960 - 58,319	$48,088	42,435 - 59,312
Average Compensation Per Employee	$25,379	22,569 - 27,133	$27,081	24,455 - 28,535
Average Fringe Benefits Per Employee	$4,388	2,747 - 5,890	$5,554	3,657 - 5,894
Compensation & Fringes Per Employee	$28,854	26,157 - 33,494	$32,636	28,113 - 34,330
Payroll to Net Sales	13.9%	11.7 - 15.7	12.7%	12.2 - 15.7
Fringe Benefits to Net Sales	2.3%	1.5 - 3.3	2.7%	2.3 - 3.2
Payroll & Fringes to Net Sales	15.6%	13.6 - 19.2	15.4%	14.4 - 18.8
Payroll to Gross Margin	50.8%	46.3 - 54.2	52.4%	47.0 - 57.1
Fringe Benefits to Gross Margin	8.7%	6.9 - 11.9	10.3%	8.9 - 11.4
Payroll & Fringes to Gross Margin	61.5%	53.8 - 63.4	62.4%	57.5 - 68.9
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.0X	2.5 - 3.2	2.9X	2.5 - 3.8
% of Whse Sales from Non-Stock Items	10.0%	4.0 - 17.5	22.5%	4.3 - 25.0
Cost of In-Stock Whse Sales/Ave Inventory	2.8X	1.8 - 3.0	2.1X	2.0 - 2.6
No. of Days Average Inventory Carried	121 Days	116 - 145	128 Days	98 - 145
Total Cost of Goods Sold to Ave Inventory	3.2X	2.5 - 3.4	3.0X	2.7 - 4.4
Whse Gross Margin Return on Ave Inventory	92%	86 - 110	109%	91 - 137
Turn & Earn Profitability Index	68%	63 - 75	78%	64 - 103
Percent of Firms on LIFO	33.3%	N/A - N/A	47.1%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	42 Days	39 - 56	40 Days	39 - 49
Gross Margin Return on Receivables	209%	201 - 260	218%	198 - 244
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	60.6%	51.1 - 76.1	71.6%	64.0 - 81.1
31-60 Days Outstanding	16.3%	8.4 - 22.1	14.2%	8.9 - 18.0
61-90 Days Outstanding	7.1%	5.0 - 8.6	6.0%	4.5 - 7.7
Over 90 Days Outstanding	16.0%	6.3 - 19.1	8.2%	4.2 - 9.6
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$132	N/A - N/A	$526	N/A - N/A
31-60 Days Outstanding	$254	N/A - N/A	$526	N/A - N/A
61-90 Days Outstanding	$183	N/A - N/A	$428	N/A - N/A
Over 90 Days Outstanding	$169	N/A - N/A	$513	N/A - N/A
Total	$149	N/A - N/A	$512	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	71.1%	N/A - N/A	70.7%	N/A - N/A
31-60 Days Outstanding	15.8%	N/A - N/A	11.0%	N/A - N/A
61-90 Days Outstanding	5.2%	N/A - N/A	5.4%	N/A - N/A
Over 90 Days Outstanding	7.9%	N/A - N/A	13.0%	N/A - N/A
Total	100.0%	N/A - N/A	100.0%	N/A - N/A

HVAC & Other Firms

	Sales Under $6,000,000		Sales $6,000,000 to 12,000,000	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	74.4%	72.5 - 77.9	73.2%	70.4 - 76.4
Gross Margin	25.6%	22.1 - 27.5	26.8%	23.6 - 29.6
Operating Expenses:				
Selling Expenses	8.0%	5.7 - 9.5	7.7%	5.5 - 8.8
Delivery Expenses	2.0%	1.5 - 2.0	1.9%	1.1 - 2.3
Warehouse Expenses	3.1%	2.1 - 4.7	3.2%	1.5 - 4.5
General & Administrative Expenses	9.4%	7.0 - 12.0	10.2%	8.2 - 11.4
Occupancy Expenses	1.9%	1.6 - 2.2	2.1%	1.5 - 2.5
Other Operating Expenses	0.1%	0.0 - 0.0	0.3%	0.0 - 0.0
Total Operating Expenses	24.4%	21.3 - 26.6	25.3%	23.4 - 27.7
Net Operating Profit	1.2%	0.1 - 1.4	1.5%	-0.3 - 3.6
Non-Operating Income	1.5%	0.9 - 2.0	2.4%	1.4 - 3.1
Non-Operating Expenses	1.4%	0.6 - 2.4	1.7%	0.4 - 2.1
Net Profit Before Tax	1.3%	-0.4 - 2.0	2.2%	1.1 - 3.7
Net Profit After Tax	1.1%	-0.1 - 1.9	1.6%	0.4 - 2.1
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	24.4%	21.3 - 26.6	25.3%	23.4 - 27.7
Total Operating Expense to Gross Margin	95.9%	94.6 - 99.6	95.3%	86.3 - 101.1
Non-People Expense to Net Sales	9.8%	7.7 - 10.4	8.2%	7.2 - 9.4
Non-People Expense to Gross Margin	38.5%	32.4 - 45.0	31.1%	26.1 - 37.4
INTEREST EXPENSE				
Interest Expense to Net Sales	0.7%	0.2 - 1.4	0.4%	0.3 - 0.8
Times Interest Earned	3.0X	1.0 - 22.0	7.6X	2.1 - 10.2
BALANCE SHEET				
Cash	4.7%	1.0 - 3.9	5.2%	0.3 - 3.8
Accounts & Notes Receivable, Trade(Net)	25.1%	20.1 - 27.3	26.4%	22.0 - 31.6
Inventory	54.2%	44.9 - 65.3	49.9%	44.6 - 55.9
Other Current Assets	3.0%	0.2 - 5.2	3.3%	0.4 - 3.4
Total Current Assets	87.0%	84.2 - 94.3	84.8%	80.4 - 90.3
All Other Assets	13.1%	5.7 - 15.8	15.2%	9.7 - 19.6
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	35.5%	22.1 - 44.9	29.7%	19.9 - 36.7
Total Long-Term Liabilities	8.4%	1.5 - 9.0	8.6%	2.8 - 14.2
Total Liabilities	43.9%	26.5 - 61.5	38.4%	26.3 - 49.5
Total Net Worth	56.1%	38.5 - 73.5	61.6%	50.5 - 73.7
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

HVAC & Other Firms

SALES OVER $12,000,000

	Typical	Middle Range
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	4.8%	3.1 - 10.7
Total Assets to Net Worth	2.1X	1.5 - 2.8
Net Profit After Tax to Total Assets	2.4%	-0.5 - 3.9
Net Sales to Total Assets	2.6X	2.2 - 3.1
Net Profit After Tax to Net Sales	0.9%	-0.2 - 1.7
Net Profit Before Tax to Net Worth	8.9%	5.0 - 14.5
Net Profit Before Tax to Total Assets	4.3%	-0.8 - 6.7
EBIT to Total Assets	6.1%	-0.1 - 8.0
SALES ANALYSIS		
Net Sales($000)	$25,232	18,098 - 40,339
Percent Sales Change from Prior Year	-3.8%	-9.8 - 1.9
Sales Mix:		
Direct Sales	16.4%	5.7 - 19.7
Warehouse Sales--Counter and Delivery	83.6%	80.3 - 94.3
TOTAL SALES	100.0%	100.0 - 100.0
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	27.1%	15.5 - 39.8
Heating & Cooling Supplies & Equipment	21.9%	5.8 - 33.8
P-V-F (Pipes-Valves-Fittings)	6.2%	0.0 - 9.0
Other Supplies & Equipment	15.1%	0.7 - 11.0
Other	29.8%	0.5 - 50.8
TOTAL SALES	100.0%	100.0 - 100.0
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	20.4 - 26.6
Gross Margin on Direct Shipments	12.8%	10.1 - 17.2
Gross Margin on Warehouse Sales	25.0%	24.3 - 26.6
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.1X	2.8 - 3.8
Total Debt to Net Worth	112.0%	38.4 - 198.2
Current Debt to Net Worth	89.6%	37.4 - 154.0
CASH MANAGEMENT RATIOS		
Current Assets to Current Debt	2.0X	1.6 - 3.3
Current Assets Minus Inventory/Curr Debt	0.8X	0.8 - 1.4
Net Sales to Working Capital	5.7X	3.9 - 10.1
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.5%	-0.4 - 3.5
Net Profit Before Tax plus Depreciation to Total Assets	4.3%	0.2 - 8.9
Working Capital to Total Assets	41.7%	29.8 - 53.9
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.2	3.0 - 5.0
Average Invoice Size	$206	155 - 255
Average Billing Line	$43.80	41.58 - 57.81

HVAC & Other Firms

SALES OVER $12,000,000

	Typical	Middle Range
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$233,511	205,422 - 260,753
Gross Margin Per Employee	$51,383	44,728 - 68,120
Average Compensation Per Employee	$26,229	24,282 - 29,129
Average Fringe Benefits Per Employee	$4,581	3,846 - 5,888
Compensation & Fringes Per Employee	$31,634	27,943 - 34,070
Payroll to Net Sales	11.9%	9.5 - 13.3
Fringe Benefits to Net Sales	2.2%	1.7 - 2.7
Payroll & Fringes to Net Sales	14.1%	11.5 - 16.2
Payroll to Gross Margin	49.2%	46.3 - 53.6
Fringe Benefits to Gross Margin	9.1%	8.1 - 11.6
Payroll & Fringes to Gross Margin	58.3%	55.0 - 62.3
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.4X	3.1 - 4.6
% of Whse Sales from Non-Stock Items	19.0%	N/A - N/A
Cost of In-Stock Whse Sales/Ave Inventory	2.5X	N/A - N/A
No. of Days Average Inventory Carried	108 Days	79 - 119
Total Cost of Goods Sold to Ave Inventory	4.7X	3.5 - 5.3
Whse Gross Margin Return on Ave Inventory	105%	95 - 177
Turn & Earn Profitability Index	78%	71 - 108
Percent of Firms on LIFO	66.7%	N/A - N/A
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	43 - 58
Gross Margin Return on Receivables	178%	163 - 202
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.9%	57.3 - 75.8
31-60 Days Outstanding	16.2%	13.1 - 20.9
61-90 Days Outstanding	6.8%	3.8 - 8.7
Over 90 Days Outstanding	12.1%	6.5 - 16.4
Total	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:		
Current (0-30 Days Outstanding)	N/A	N/A - N/A
31-60 Days Outstanding	N/A	N/A - N/A
61-90 Days Outstanding	N/A	N/A - N/A
Over 90 Days Outstanding	N/A	N/A - N/A
Total	N/A	N/A - N/A
Aging of Receivable Invoices:		
Current (0-30 Days Outstanding)	N/A	N/A - N/A
31-60 Days Outstanding	N/A	N/A - N/A
61-90 Days Outstanding	N/A	N/A - N/A
Over 90 Days Outstanding	N/A	N/A - N/A
Total	N/A	N/A - N/A

HVAC & Other Firms

SALES OVER $12,000,000

	Typical	Middle Range
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0
Cost of Goods Sold	76.2%	73.4 - 79.6
Gross Margin	23.9%	20.4 - 26.6
Operating Expenses:		
Selling Expenses	7.2%	5.2 - 9.6
Delivery Expenses	1.8%	1.3 - 2.5
Warehouse Expenses	2.1%	1.2 - 2.9
General & Administrative Expenses	9.5%	5.9 - 11.8
Occupancy Expenses	2.8%	1.8 - 3.1
Other Operating Expenses	0.1%	0.0 - 0.0
Total Operating Expenses	23.5%	20.8 - 24.9
Net Operating Profit	0.3%	-0.9 - 2.1
Non-Operating Income	2.6%	1.6 - 3.0
Non-Operating Expenses	1.4%	1.2 - 2.3
Net Profit Before Tax	1.5%	-0.7 - 2.8
Net Profit After Tax	0.9%	-0.2 - 1.7
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.5%	20.8 - 24.9
Total Operating Expense to Gross Margin	98.9%	91.6 - 103.7
Non-People Expense to Net Sales	9.0%	7.2 - 10.0
Non-People Expense to Gross Margin	37.4%	34.7 - 40.3
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.5 - 1.2
Times Interest Earned	2.0X	0.0 - 4.0
BALANCE SHEET		
Cash	4.7%	1.2 - 4.7
Accounts & Notes Receivable, Trade(Net)	31.8%	25.2 - 38.3
Inventory	45.3%	38.6 - 50.1
Other Current Assets	2.5%	0.2 - 3.0
Total Current Assets	84.3%	78.9 - 90.6
All Other Assets	15.7%	9.4 - 21.1
Total Assets	100.0%	100.0 - 100.0
Total Current Liabilities	41.5%	24.4 - 53.5
Total Long-Term Liabilities	11.1%	3.2 - 14.5
Total Liabilities	52.6%	30.8 - 67.7
Total Net Worth	47.4%	32.3 - 69.2
Total Liabilities & Net Worth	100.0%	100.0 - 100.0

All Reporting Firms
and
Large Volume Firms

(Those with Sales Volume of $50 Million & Over)

Large Volume Firms (Sales volume Over $50 Million)

	All Responding Firms		All Firms with Sales Volume of $50 Million & Over	
	Typical	**Middle Range**	**Typical**	**Middle Range**
OVERALL PERFORMANCE MEASURES				
Net Profit After Tax to Net Worth	4.6%	0.4 - 10.9	5.3%	4.0 - 9.1
Total Assets to Net Worth	2.0X	1.4 - 2.8	2.2X	1.9 - 2.6
Net Profit After Tax to Total Assets	2.3%	0.1 - 4.9	2.5%	1.4 - 3.8
Net Sales to Total Assets	2.5X	2.1 - 3.0	2.5X	2.1 - 3.2
Net Profit After Tax to Net Sales	0.9%	0.0 - 2.0	1.0%	0.5 - 1.6
Net Profit Before Tax to Net Worth	6.4%	0.6 - 14.1	8.3%	6.2 - 13.6
Net Profit Before Tax to Total Assets	3.2%	0.1 - 7.0	3.8%	1.9 - 6.1
EBIT to Total Assets	5.8%	2.7 - 9.1	6.6%	4.4 - 8.0
SALES ANALYSIS				
Net Sales($000)	$8,288	4,923 - 17,423	$72,701	60,085 - 247,028
Percent Sales Change from Prior Year	-3.5%	-9.7 - 3.2	-0.3%	-8.9 - 2.7
Sales Mix:				
Direct Sales	11.0%	3.8 - 15.0	15.6%	11.7 - 21.6
Warehouse Sales--Counter and Delivery	89.0%	85.0 - 96.1	84.4%	78.4 - 88.3
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
PRODUCT SALES MIX				
Plumbing Supplies & Equipment	51.0%	30.0 - 75.0	47.2%	30.8 - 65.5
Heating & Cooling Supplies & Equipment	14.5%	0.0 - 25.0	14.3%	2.0 - 21.0
P-V-F (Pipes-Valves-Fittings)	21.8%	0.0 - 25.0	24.4%	0.0 - 34.4
Other Supplies & Equipment	5.9%	0.0 - 7.8	7.4%	0.0 - 9.7
Other	6.9%	0.0 - 5.0	6.7%	0.0 - 8.5
TOTAL SALES	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
GROSS MARGIN				
Gross Margin on Net Sales	25.2%	21.7 - 27.9	22.0%	20.5 - 23.0
Gross Margin on Direct Shipments	12.4%	9.9 - 17.3	10.0%	9.9 - 12.7
Gross Margin on Warehouse Sales	26.2%	23.3 - 29.3	24.4%	23.3 - 24.9
ASSET AND FINANCIAL MANAGEMENT				
Current Asset Turn (Sales/Current Assets)	2.9X	2.5 - 3.5	3.1X	2.7 - 3.5
Total Debt to Net Worth	96.6%	43.3 - 179.8	120.7%	87.1 - 159.4
Current Debt to Net Worth	74.8%	35.2 - 134.0	74.5%	50.1 - 108.9
CASH MANAGEMENT RATIOS				
Current Assets to Current Debt	2.5X	1.7 - 3.9	2.9X	1.8 - 3.7
Current Assets Minus Inventory/Curr Debt	1.1X	0.8 - 1.7	1.3X	0.8 - 1.9
Net Sales to Working Capital	4.9X	3.5 - 7.8	4.8X	3.6 - 6.2
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.3%	0.7 - 3.6	2.1%	1.8 - 2.7
Net Profit Before Tax plus Depreciation to Total Assets	5.7%	2.0 - 9.3	5.2%	4.7 - 7.3
Working Capital to Total Assets	49.5%	35.0 - 64.2	54.8%	43.5 - 64.8
INVOICE/TRANSACTION DATA				
Billing Lines Per Invoice	4.6	3.8 - 6.0	3.9	N/A - N/A
Average Invoice Size	$178	123 - 255	$236	206 - 283
Average Billing Line	$39.15	26.94 - 57.63	$53.82	N/A - N/A

Large Volume Firms (Sales volume Over $50 Million)

	All Responding Firms		All Firms with Sales Volume of $50 Million & Over	
	Typical	Middle Range	Typical	Middle Range
PERSONNEL PRODUCTIVITY				
Sales Per Employee	$229,156	188,825 - 263,401	$266,723	246,060 - 317,813
Gross Margin Per Employee	$55,894	47,502 - 65,923	$63,279	49,578 - 71,154
Average Compensation Per Employee	$28,218	24,912 - 31,993	$30,094	25,699 - 33,195
Average Fringe Benefits Per Employee	$5,504	4,248 - 6,840	$5,859	4,076 - 7,001
Compensation & Fringes Per Employee	$34,065	29,401 - 38,914	$34,979	30,936 - 40,398
Payroll to Net Sales	12.4%	10.8 - 14.4	10.9%	9.9 - 11.7
Fringe Benefits to Net Sales	2.4%	1.9 - 3.2	1.9%	1.6 - 2.4
Payroll & Fringes to Net Sales	15.0%	12.7 - 17.5	12.5%	12.1 - 13.7
Payroll to Gross Margin	50.8%	46.3 - 55.4	50.2%	46.8 - 52.0
Fringe Benefits to Gross Margin	9.9%	8.1 - 11.9	9.2%	8.3 - 10.4
Payroll & Fringes to Gross Margin	61.0%	55.1 - 66.3	59.2%	57.5 - 61.6
INVENTORY MANAGEMENT				
Cost of Whse Goods Sold to Ave Inventory	3.4X	2.8 - 4.3	3.8X	2.8 - 4.2
% of Whse Sales from Non-Stock Items	14.9%	8.1 - 23.0	16.6%	N/A - N/A
Cost of In-Stock Whse Sales/Ave Inventory	2.8X	2.2 - 3.4	2.9X	N/A - N/A
No. of Days Average Inventory Carried	109 Days	86 - 130	96 Days	86 - 132
Total Cost of Goods Sold to Ave Inventory	4.1X	3.1 - 5.2	4.8X	3.7 - 5.2
Whse Gross Margin Return on Ave Inventory	119%	96 - 153	107%	92 - 130
Turn & Earn Profitability Index	84%	70 - 107	73%	68 - 98
Percent of Firms on LIFO	50.2%	N/A - N/A	76.9%	N/A - N/A
ACCOUNTS RECEIVABLE				
Average Collection Period	47 Days	41 - 58	50 Days	47 - 56
Gross Margin Return on Receivables	184%	147 - 217	151%	128 - 178
Aging of Receivable Dollars:				
Current (0-30 Days Outstanding)	62.9%	52.8 - 73.0	60.2%	52.9 - 65.0
31-60 Days Outstanding	18.0%	13.4 - 22.2	19.2%	18.2 - 22.2
61-90 Days Outstanding	7.7%	4.9 - 9.9	8.8%	5.8 - 10.8
Over 90 Days Outstanding	11.5%	4.5 - 16.8	11.8%	7.8 - 15.6
Total	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Average Balance of Outstanding Invoices:				
Current (0-30 Days Outstanding)	$300	163 - 1,185	$1,891	N/A - N/A
31-60 Days Outstanding	$287	182 - 1,808	$1,892	N/A - N/A
61-90 Days Outstanding	$258	139 - 1,973	$1,892	N/A - N/A
Over 90 Days Outstanding	$266	123 - 1,902	N/A	N/A - N/A
Total	$274	150 - 1,343	$1,891	N/A - N/A
Aging of Receivable Invoices:				
Current (0-30 Days Outstanding)	68.9%	60.8 - 76.6	N/A	N/A - N/A
31-60 Days Outstanding	15.5%	11.5 - 20.5	N/A	N/A - N/A
61-90 Days Outstanding	6.2%	4.1 - 7.9	N/A	N/A - N/A
Over 90 Days Outstanding	9.4%	4.1 - 11.9	N/A	N/A - N/A
Total	100.0%	100.0 - 100.0	N/A	N/A - N/A

Large Volume Firms (Sales volume Over $50 Million)

	All Responding Firms		All Firms with Sales Volume of $50 Million & Over	
	Typical	**Middle Range**	**Typical**	**Middle Range**
INCOME STATEMENT				
Net Sales	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Cost of Goods Sold	74.8%	72.1 - 78.3	78.1%	77.0 - 79.5
Gross Margin	25.2%	21.7 - 27.9	22.0%	20.5 - 23.0
Operating Expenses:				
Selling Expenses	7.2%	5.4 - 8.6	6.8%	5.2 - 8.3
Delivery Expenses	2.1%	1.4 - 2.7	1.9%	1.5 - 2.2
Warehouse Expenses	2.9%	1.8 - 3.6	3.1%	2.7 - 3.4
General & Administrative Expenses	9.3%	6.8 - 11.1	7.0%	4.9 - 8.9
Occupancy Expenses	2.5%	1.4 - 3.1	1.7%	1.4 - 2.1
Other Operating Expenses	0.3%	0.0 - 0.0	0.0%	0.0 - 0.0
Total Operating Expenses	24.2%	20.7 - 27.0	20.5%	19.6 - 22.6
Net Operating Profit	0.9%	-0.5 - 2.6	1.4%	0.6 - 2.5
Non-Operating Income	2.0%	1.0 - 2.8	1.7%	1.2 - 1.8
Non-Operating Expenses	1.7%	1.0 - 2.4	1.7%	1.1 - 1.9
Net Profit Before Tax	1.3%	-0.2 - 2.8	1.5%	0.8 - 2.1
Net Profit After Tax	0.9%	0.0 - 2.0	1.0%	0.5 - 1.6
OPERATING EXPENSE CONTROL				
Total Operating Expense to Net Sales	24.2%	20.7 - 27.0	20.5%	19.6 - 22.6
Total Operating Expense to Gross Margin	96.4%	89.4 - 102.3	93.6%	90.6 - 97.3
Non-People Expense to Net Sales	8.6%	6.6 - 9.9	7.4%	6.6 - 8.2
Non-People Expense to Gross Margin	34.3%	28.3 - 39.3	34.0%	30.7 - 34.6
INTEREST EXPENSE				
Interest Expense to Net Sales	0.8%	0.3 - 1.4	1.0%	0.5 - 1.2
Times Interest Earned	3.0X	1.0 - 8.0	2.0X	2.0 - 4.0
BALANCE SHEET				
Cash	4.8%	0.6 - 4.7	2.2%	1.1 - 2.5
Accounts & Notes Receivable, Trade(Net)	32.1%	24.6 - 39.3	33.3%	30.9 - 35.3
Inventory	47.3%	40.2 - 54.0	44.5%	38.5 - 50.7
Other Current Assets	2.5%	0.2 - 2.7	2.7%	0.3 - 4.4
Total Current Assets	86.7%	82.2 - 92.7	82.8%	77.6 - 90.7
All Other Assets	13.4%	7.3 - 17.9	17.2%	9.3 - 22.4
Total Assets	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0
Total Current Liabilities	37.4%	21.9 - 51.3	34.0%	20.2 - 47.6
Total Long-Term Liabilities	12.6%	1.2 - 18.4	20.4%	3.8 - 30.0
Total Liabilities	50.0%	30.5 - 64.8	54.4%	46.9 - 62.4
Total Net Worth	50.0%	35.2 - 69.5	45.6%	37.6 - 53.1
Total Liabilities & Net Worth	100.0%	100.0 - 100.0	100.0%	100.0 - 100.0

Appendix

Survey Methodology/Demographics

In mid March, 1992, the American Supply Association mailed strictly confidential questionnaires to all PHCP wholesaler members. The primary intent of this survey was to collect detailed financial and operating information from member firms by specific sales volume size and type of product emphasis.

Once the questionnaires were received by Industry Insights, all company identification, if any, was removed and a confidential company identification code assigned. The data was then coded, keyed into the computer and edited by Industry Insights financial analysts for accuracy and consistency. Computer processing was performed on all data to insure statistical validity and to produce the financial and operating ratios contained in this study.

In all, 286 completed and usable questionnaires were received by Industry Insights representing well over 1,000 different wholesaler locations (including headquarters). In particular, the statistical sample consists of the following:

	Number of Reporting Firms
All Reporting Firms	286
By Product Emphasis	
Plumbing Supply Firms (those that obtain more than 50% of sales from plumbing products)	133
Pipe, Valves and Fittings Firms (those with more than 50% of sales from PVF)	41
Plumbing Supply and Pipe, Valves and Fittings Firms (those with more than 50% of sales from plumbing and PVF products combined but less than 50% in each category alone)	55
HVAC and Other Emphasis Firms (those companies that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and PVF products)	57
By Product Emphasis and Sales Volume Size	
Plumbing Supply Firms:	
Sales Under $4,000,000	31
Sales $4,000,000 to $7,000,000	34
Sales $7,000,000 to $12,000,000	24
Sales Over $12,000,000	44

Survey Methodology/Demographics

Pipe, Valves and Fittings Firms:
- Sales Under $5,000,000 11
- Sales $5,000,000 to $12,000,000 12
- Sales Over $12,000,000 18

Plumbing Supply & Pipe, Valves and Fittings Firms:
- Sales Under $5,000,000 9
- Sales $5,000,000 to $9,000,000..... 19
- Sales Over $9,000,000..... 27

HVAC & Other Emphasis Firms:
- Sales Under $6,000,000 17
- Sales $6,000,000 to $12,000,000 18
- Sales Over $12,000,000 22

Large Volume Firms (those with sales volume of $50 million & over)..... 15

The statistical information contained in this report is believed to be representative of the companies responding to the survey. All reasonable efforts were taken by Industry Insights, Inc. to assure data comparability within the limitations of accounting reporting procedures. However, the data used in this report are not necessarily based on audited financial statements and the statistical validity of any given number varies depending upon sample sizes and the amount of consistency among responses for that particular ratio. Industry Insights, therefore, makes no representations or warranties with respect to the results of this study and shall not be liable to clients or anyone else for any information inaccuracies, or errors or omissions in contents, regardless of the cause of such inaccuracy, error or omission. In no event shall Industry Insights be liable for any consequential damages.

Fiscal Year-Ends

Among the participants in each year's **Operating Performance Report** it is somewhat interesting to take note of the patterns of fiscal year-end dates. The table below shows that of the firms responding to the 1992 ASA survey, 61% reported that their fiscal year follows the calendar year. Among the 39% of firms having non-December fiscal year ends, the most popular months were March, January, September, and February.

Month of Fiscal Year-Ends

Month	Percentage of Companies
January	5.5%
February	5.2
March	6.6
April	3.7
May	1.1
June	2.9
July	1.5
August	1.5
September	5.2
October	2.6
November	3.2
December	61.0
Total	100.0

Ratio Definitions and Sample Calculations

The primary purpose of this ASA **Operating Performance Report** of the PHCP Wholesaler/Distributor and PVF Distributing industries is to provide a basis for comparing your own firm's performance with industry comparatives. In order to do this, it is necessary to calculate your firm's individual company ratios using the same methods that were used to compute the ratios in this report. These definitions appear on the pages which follow.

To further clarify the computational process, this section of the report also contains a completed survey form and sample calculations for a purely hypothetical company.

Note: Those firms that participated in the ASA survey had the opportunity to receive a confidential Company Performance Report. This report presents a company's own ratios and data already computed in a manner consistent with those appearing in the industry report, which are displayed alongside the appropriate industry comparatives. As a result, participating companies received invaluable information about their own business performance without having to spend time and effort to make the calculations manually.

CONFIDENTIAL

1992

Operating Performance Survey

(Based on 1991 Fiscal Year Results)

This 1992 ASA *Operating Performance Report (OPR)* survey (of 1991 financial results) promises to be the most comprehensive profile of industry performance results ever published. By filling out as much information as possible, you will be assured of receiving a detailed, CONFIDENTIAL *Company Performance Report* analysis of your own business. This 20 plus page, personalized profile will show your results next to industry *benchmarks* for gauging strengths and weaknesses, and improvement opportunities.

This invaluable managerial tool is nowhere else available, and would cost hundreds of dollars to have independently prepared for your business.

General Information

- This confidential questionnaire is designed to require a minimum of effort on your part. For your convenience, you have the option of filling out this entire form, or the shorter version. Please keep in mind, however, the more information you provide, the more you will get back about your company.
- **If you cannot fill out every line, just do what you can. It is OK to leave blanks.**
- Enter figures from your completed year which ended nearest to December 31, 1991. While full year data is required, you do not need to wait for audited results from your accountant.
- Please report round numbers only; show dollar figures without pennies.
- Please report on the basis of your total firm rather than for individual branches.
- Refer to the accompanying Description of Operating Expense Categories for help in filling out lines 4 through 10.
- If you need help, call Tom Noon of Industry Insights at 614/442-6626; or, if you prefer, fill out what you can and forward your financial statements to Industry Insights. We will fill out the rest of the form for you to the extent possible.
- **All responses will be kept in strictest confidence by** Industry Insights, Inc.
- Use the enclosed, self-addressed envelope to return this confidential form to:

Industry Insights, Inc.
1585 Bethel Road
Columbus, OH 43220

Early Response Deadline: April 17, 1992
(to receive a quick turnaround Executive Summary Profile of your business)

Final Response Deadline: May 22, 1992

Confidential

AMERICAN SUPPLY ASSOCIATION
1992 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1991Financial Results)

CLASSIFICATION DATA

Ending 12 month period upon which data is based: MM/DD/YY 12 (1)

Number of locations (including headquarters) which are included in the data reflected on this survey form. 1 (2)

Product Sales Mix: Please indicate the percentage of your total company sales accounted for by each type of product (estimate if necessary).

(4) 30 Plumbing Supplies & Equipment, Including Plumbing Pipe, Valves & Fittings
(5) ____ Hydronic & Warm Air Heating & Air Conditioning Supplies & Equipment
(6) 30 PVF (Pipe, Valves & Fittings)
(7) 30 Other Supplies & Equipment
(8) 10 Other (please specify)
(9) **100% Total**

SPECIAL OPTION

INDIVIDUAL COMPANY PERFORMANCE REPORT INDUSTRY GROUP COMPARISON PREFERENCES

If you prefer to specifically designate which industry segments to be included as comparatives in your own firm's individual company performance report (rather than having the computer automatically make the determination), please do so by checking up to 6 boxes from the following groups. Your firm's report will then include the industry comparatives for each box checked.

1 ☐ Plumbing Supply Firms--All Reporting Firms
2 ☐ Plumbing Supply Firms--Sales Under $4 Million
3 ☐ Plumbing Supply Firms--Sales $4-$7 Million
4 ☐ Plumbing Supply Firms--Sales $7-$12 Million
5 ☐ Plumbing Supply Firms--Sales Over $12 Million
6 ☐ Plumbing Supply Firms--High Profit Firms

7 ☐ P-V-F Firms--All Reporting Firms
8 ☐ P-V-F Firms--Sales Under $5 Million
9 ☐ P-V-F Firms--Sales $5-$12 Million
10 ☐ P-V-F Firms--Sales Over $12 Million
11 ☐ P-V-F Firms--High Profit Firms

12 ☐ Plumbing & P-V-F Firms--All Reporting Firms
13 ☐ Plumbing & P-V-F Firms--Sales Under $5 Million
14 ☐ Plumbing & P-V-F Firms--Sales $5-$9 Million
15 ☐ Plumbing & P-V-F Firms--Sales Over $9 Million
16 ☐ Plumbing & P-V-F Firms--High Profit Firms

17 ☐ HVAC Firms--All Reporting Firms
18 ☐ HVAC Firms--Sales Under $6 Million
19 ☐ HVAC Firms--Sales $6-$12 Million
20 ☐ HVAC Firms--Sales Over $12 Million
21 ☐ HVAC Firms--High Profit Firms

22 ☐ All Reporting Firms

23 ☐ Large Volume Firms (those with sales volume of $50 million & over)

SHOWROOMS (If applicable)

(Note: For purposes of this survey, a "showroom" is an area of at least 500 square feet which is set aside to show bathroom products and other related displays. Counter sales area should not be considered as part of your showroom.)

If you have showroom(s), how many showrooms do you have that:

90 #_____Sell wholesale only 91 #_____Sell retail only 92 #_____Sell both wholesale and retail together

Indicate below to whom any questions regarding this form should be directed and to whom the final report should be sent. Industry Insights will detach this coupon upon receipt to assure confidentiality.

Company Name SAMPLE COMPANY Phone #_____

Street Address_____City_____State_____ZIP_____

Person to contact with questions about data_____

Person to whom report should be sent_____ CODE #_____

Participation fee: Please enclose your check, payable to ASA, in the amount of $25. Illinois residents include 8% sales tax.
amount paid_____ check #_____ date_____
Send to: Industry Insights, Inc., PO Box 20127, Columbus, OH 43220-0127.

Line #	INCOME STATEMENT ITEMS	AMOUNT IN $ (omit cents)	
1	Net Sales (Include direct shipments. Deduct claims, returns & allowances but not cash discounts allowed on sales. Exclude sales taxes.)	$$ 5,884,780	10
2	Cost of Goods Sold (Include inbound transportation costs. Subtract purchase claims, returns and allowances but not cash discounts on purchases) (FIFO basis)*.	$ 4,392,299	11
3	Gross Profit on Sales (Line 1 minus Line 2) (FIFO Basis)	$ 1,492,481	12
4	Selling Expenses (refer to definition sheet)	$ 280,652	13
5	Delivery Expenses (refer to definition sheet)	$ 177,206	14
6	Warehouse Expenses (refer to definition sheet)	$ 197,090	15
7	General & Administrative Expenses (refer to definition sheet)	$ 562,999	16
8	Occupancy Expenses (refer to definition sheet)	$ 74,396	17
9	Other Operating Expense (refer to definition sheet)	$ 31,278	18
10	Total Operating Expenses (Sum of Lines 4 through 9)***	$ 1,323,621	19
11	Net Operating Profit (Line 3 minus Line 10) (FIFO)	$ 168,860	20
12	Non-Operating Income (Include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business)	$ 34,838	21
13	Non-Operating Expenses (Include cash discounts allowed on sales, interest paid, losses on sales of fixed assets, and other non-operating expenses or losses not already included above)	$ 38,562	22
14	Net Profit Before Taxes (Line 11 plus Line 12 minus Line 13) (FIFO)	$ 114,136	23
15	Income Taxes (Federal, State & City)	$ 45,321	24
16	Net Profit After Income Taxes (Line 14 minus Line 15) (FIFO)	$ 69,815	25

Line #	BALANCE SHEET ITEMS	AMOUNT IN $ (omit cents)	
17	Cash (Include savings accounts, CD's & other temporary investments)	$ 159,182	26
18	Accounts & Notes Receivable, Trade (Net)	$ 1,096,734	27
19	Inventory (FIFO Basis)	$ 983,840	28
20	Other Current Assets (Such as prepaid items, supplies, etc.)	$ 18,394	29
21	Total Current Assets (Sum of Lines 17 through 20)	$ 2,258,150	30
22	All Other Assets (Any Assets not included above)	$ 111,740	31
23	Total Assets (Sum of Lines 21 and 22) (Equal to Line 28) (FIFO))	$ 2,369,891	32
24	Total Current Liabilities (Due in less than 1 year)	$ 520,042	33
25	Total Long-Term Liabilities (Due in more than 1 year)	$ 777,250	34
26	Total Liabilities (Sum of Lines 24 and 25)	$ 1,297,292	35
27	Total Net Worth (or Owner's Equity) (FIFO)**	$ 1,072,599	36
28	Total Liabilities & Net Worth (Sum of Lines 26 and 27) (Equal to Line 23)	$ 2,369,891	37

* If on LIFO, subtract your "Annual Additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.
** If on LIFO, add your total LIFO reserve to your book net worth to get your FIFO net worth.
*** If you are a Subchapter S Corporation or a partnership, allocate an appropriate management salary for Owner-Managers to the applicable operating expense category(s) and to total operating expense. This would be an amount similar to what would have to be paid to a non-equity owning manager or managers. Doing this will assure that your numbers will be comparable to corporations paying separate management salaries.

(OPTIONAL INFORMATION PAGE)

Line #	COMPENSATION DATA	AMOUNT IN $ (omit cents)
29	Total Payroll Expenses (Include salaries, bonuses and commissions paid to all employees, including owners; exclude fringe benefits and payroll taxes)	$ 604,313 38
30	Total of Fringe Benefit Payments and Payroll Taxes (Include Company pension and profit sharing payments plus FICA, Workman's Compensation, Unemployment, Group Insurance, etc., for all employees, including owners)	$ 234,303 39
31	Gross Income of the Highest Paid Employee, Including Owners (refer to the person's W-2 statement gross income - as from salaries, commissions and bonuses, but excluding fringe benefits and payroll taxes.)	$ 50,000 40
32	Gross Income (as above) of the Second Highest Paid Employee (Including Owners)	$ 45,000 41

Line #	WAREHOUSE AND DIRECT SALES DATA	AMOUNT IN $ (omit cents)
33	Dollar Amount of Direct (Drop) Shipment Sales	$ 644,644 42
34	Dollar Amount of Warehouse Sales (Counter & Delivery)	$ 5,240,136 45
35	Total Sales (Sum of Lines 33 and 34) (Equal to Line 1)	$ 5,844,780 46
36	Dollar Amount of Gross Profit on Direct (Drop) Shipments	$ 96,264 47
37	Dollar Amount of Gross Profit on Warehouse Sales (Report on FIFO Basis)	$ 1,396,217 48
38	Total FIFO Gross Profit (Sum of Lines 36 and 37) (Equal to Line 3)	$ 1,492,481 49

Line #	ADDITIONAL DIRECT SALES DATA	AMOUNT IN $ (omit cents)
39	Previous Year's Net Sales	$ 6,002,478 50
40	Previous Year's Ending Inventory (FIFO Basis)	$ 962,313 51
41	Average Number of Employees During 1991 (Include all management personnel and all other employees. Convert part-time employees into full-time equivalents depending upon how much they worked relative to full-time employees. For example, two half-time employees each working twelve months would be counted as one employee)	# 21 52
42	Percent of Total 1991 Sales that were made for Cash (estimate if necessary)	17 % 53
43	Were you on a LIFO Inventory valuation system during 1991?	☐ Yes ☐ No 54
44	Total Number of Customer Invoices During the Year (optional)	# 21,484 55
45	Annual # of Billing Lines on Customer Invoices (optional)	# 171,872 56
46	Interest Paid in 1991 (also include this amount on Line 13)	$ 13,092 57
47	Percent of Warehouse Sales coming from Non-Stock Items (optional)	8 % 87
48	Total 1991 Depreciation Expense	$ 18,310 85

DETAIL OF ACCOUNTS RECEIVABLE (YEAR END)				
Line #		NUMBER OF INVOICES		AMOUNT IN $ (omit cents)
49	Current (0-30 Days Outstanding)	# 257 58		$ 571,339 64
50	31 - 60 Days Outstanding	# 47 59		$ 154,748 65
51	61 - 90 Days Outstanding	# 17 60		$ 189,310 66
52	Over 90 Days Outstanding	# 28 61		$ 181,337 67
53	Total Accounts Receivable (Sum of Lines 49 thru 52)	# 349 63		$ 1,096,734 69

ASA RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
OVERALL PERFORMANCE			
Net Profit After Tax to Net Worth (%)	(16) Net Profit After Tax ÷ (27) Net Worth	Overall financial performance from the owner's standpoint.	$69,815 ÷ 1,072,599 = 6.5%
Total Assets to Net Worth (x)	(23) Total Assets ÷ (27) Net Worth	Setting policies concerning amount of debt vs. equity in the business.	$2,369,891 ÷ 1,072,599 = 2.2x
Net Profit After Tax to Total Assets (%)	(16) Net Profit After Tax ÷ (23) Total Assets	Overall financial performance from a management standpoint.	$69,815 ÷ 2,369,891 = 2.9%
Net Sales to Total Assets (x)	(1) Net Sales ÷ (23) Total Assets	Asset management--productivity of total asset base.	$5,884,780 ÷ 2,369,891 = 2.5x
Net Profit After Tax to Net Sales (%)	(16) Net Profit After Tax ÷ (1) Net Sales	Margin management (gross margin and expenses)	$69,815 ÷ 5,884,780 = 1.2%
Net Profit Before Tax to Total Assets (%)	(14) Net Profit Before Tax ÷ (23) Total Assets	Overall financial performance from a management standpoint ignoring tax considerations.	$114,136 ÷ 2,369,891 = 4.8%
EBIT* to Total Assets (%)	[(14) Net Profit Before Tax + (48) Interest] ÷ (23) Total Assets	Same as previous ratio but ignores interest expense (leverage, not operations related)	[[$114,136 + 13,092] ÷ 2,369,891 = 5.4%
SALES ANALYSIS			
Percent Sales Change from prior year	[(1) Net Sales - (39) Previous Years Sales] ÷ (39) Previous Years Sales	Indication of company growth. Caution should be used due to inflationary distortions.	[$5,884,780 - 6,002,478] ÷ 6,002,478 = (2.0)
ASSET AND FINANCIAL MANAGEMENT			
Current Asset Turn (x)	(1) Net Sales ÷ (21) Total Current Assets	Asset management - productivity of current asset base.	$5,884,780 ÷ 2,258,150 = 2.6x
Total Debt to Net Worth (%)	(26) Total Liabilities ÷ (27) Net Worth	Measures overall leverage. Use to set policy of how much debt is employed relative to owner's funds.	$1,297,292 ÷ 1,072,599 = 120.9%
Current Debt to Net Worth (%)	(24) Current Liabilities ÷ (27) Net Worth	A measure of the financial mix of the firm.	$520,042 ÷ 1,072,599 = 48.5%
Current Assets to Current Debt (x)	(21) Total Current Assets ÷ (24) Total Current Liabilities	Good overall measures of liquidity. Used to stay within guides set by suppliers and creditors.	$2,258,150 ÷ 520,042 = 4.3x
Current Assets Less Inventory to Current Debt (x)	[(21) Total Current Assets - (19) Inventory] ÷ (24) Total Current Liabilities	Same as above ratio.	[$2,2258,150 - 983,840] ÷ 520,042 = 2.5x
WORKING CAPITAL			
Net Sales to Working Capital (x)	(10) Net Sales ÷ [(30) Current Assets - (33) Current Liabiiities]	Measures the number of times working capital is needed to support sales. A low ratio may indicate unprofitable use of working capital while a very high ratio often signifies overtrading.	$6,320,254 ÷ ($2,525,252 - $668,082) = 3.4x

*EBIT refers to "Earnings Before Interest and Taxes."

ASA RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
Net Profit Before Tax plus Depreciation to Net Sales (%)	[(23) Net Profit Before Tax + (85) Depreciation] ÷ (10) Net Sales	Since depreciation is a non-cash expense, this measure adds depreciation back to profits to get a measure of the "real cash return" on sales.	($41,539 + $18,310) ÷ $6,320,254 = 0.9%
Net Profit Before Tax Plus Depreciation to Total Assets (%)	[(23) Net Profit Before Tax + (85) Depreciation] ÷ (32) Total Assets	Since depreciation is a non-cash expense, this measure adds depreciation back to profits to get a measure of the "real cash return" on assets.	($41,539 + $18,310) ÷ $2,645,263 = 2.3%
Working Capital to Total Assets (%)	[(30) Current Assets - (33) Current Liabilities] ÷ (32) Total Assets	A measure of liquidity, this compares net liquid assets to total assets. This measure is one component of the Z score.	($2,525,252 - $668,082) ÷ $2,645,263 = 70.2%
TRANSACTION			
Billing Lines Per Invoice	(45) Annual Billing Lines ÷ (44) Total Number of Invoices	Gives some indication of invoicing efficiency.	171,872 ÷ 21,484 = 8
Average Invoice Size ($)	(1) Net Sales ÷ (44) Total Number of Invoices	Indicates the typical size of an invoice and thus add-on purchase efficiency.	$5,884,780 x .83 ÷ 21,484 = $227.35
Average Billing Line ($)	(1) Net Sales ÷ (45) Annual Billing Lines	Indicates the size of a typical item billed.	$5,884,780 x .83 ÷ 171,872 = $28.42
PERSONNEL PRODUCTIVITY			
Payroll to Net Sales (%)	(29) Total Payroll Expenses ÷ (1) Net Sales	Overall indicator of payroll cost control. Inflation proof. Compare: overtime; vs. industry; by store	$604,313 ÷ 5,884,780 = 10.3%
Fringe Benefits to Net Sales (%)	(30) Total Fringe & Payroll Taxes ÷ (1) Net Sales	Indicates how much of sales are paid in fringe benefits. Compare: overtime; vs. industry.	$234,303 ÷ 5,884,780 = 4.0%
Payroll and Fringes to Net Sales (%)	[(29) Payroll Expense + (30) Fringe Benefits] ÷ (1) Net Sales	Indicator of all personnel related costs.	[$604,313 + 234,303] ÷ 5,884,780 = 14.3%
Payroll to Gross Margin (%)	(29) Total Payroll Expense ÷ (3) Gross Profit on Sales	Indicates the portion of gross profits that are used in payroll costs.	$604,313 ÷ 1,492,481 = 40.5%
Fringe Benefits to Gross Margin (%)	(30) Total Fringe Benefits ÷ (3) Gross Profit on Sales	Same as above but relative to fringe benefits.	$234,303 ÷ 1,492,481 = 15.7%
Payroll and Fringes to Gross Margin (%)	[(29) Total Payroll + (30) Total Fringes] ÷ (3) Gross Profit on Sales	Indicator of all personnel related costs that are used in gross margin production.	[$604,313 + 234,303] ÷ 1,492,481 = 56.2%
INVENTORY MANAGEMENT			
Cost of Warehouse Goods Sold to Average Inventory (x)	[(34) Total Warehouse Sales - (37) Warehouse Gross Profit] ÷ {[(19) Inventory + (40) Previous Years Inventory] ÷ 2}	Measure of inventory productivity. Compare to industry, over time or product categories.	[$5,240,136 - 1,396,217] ÷ [(983,840 + 992,313) ÷ 2] = 3.9x
Number of Days Average Inventory Carried	{[(19) Inventory + (40) Previous Years Inventory] ÷ 2} ÷ {[(34) Warehouse Sales - (37) Warehouse Gross Profit] ÷ 365}	Similar in value to above measure. Shows how quickly inventory is moving.	[($983,840 + 992,313) ÷ 2] ÷ [(5,240,136 - 1,396,217) ÷ 365] = 94 days

ASA RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
Total Cost of Goods Sold to Average Inventory (x)	(2) Total Cost of Goods Sold ÷ [(19) Inventory + (40) Previous Years Inventory) ÷ 2]	Shows how many times you were able to "turn over" your inventory.	$4,392,299 ÷ [(983,840 + 992,313) ÷ 2] = 4.4x
Warehouse Gross Margin Return on Average Inventory (%)	(37) Warehouse Gross Profit ÷ {[(19) Inventory + (40) Previous Years Inventory] ÷ 2}	Overall measure of inventory, profitability and productivity. Combines margin and turnover.	$1,396,217 ÷ [(983,840 + 992,313) ÷ 2] = 141.3%
Turn & Earn Profitability Index (%)	{[(34) Warehouse Sales - (37) Warehouse Gross Profit] ÷ [(19) Inventory + (40) Previous Years Inventory] ÷ 2} x {[(37) Warehouse Gross Profit ÷ (34) Warehouse Sales] x 100}	Another return-on-investment measure which combines margin and turnover.	[($5,240, 136 - 139,217) ÷ (983,840 + 992,313) ÷ 2] x [(1,396,217 ÷ 5,240,136) x 100] = 103.9
ACCOUNTS RECEIVABLE			
Average Collection Period	(18) Accounts & Notes Receivable (net) ÷ [(1) Net Sales x (1.0 - (44) % Cash Sales) ÷ 365]	Measuring effectiveness of various collection policies. Compare to industry and over time.	1,096,734 ÷ [5,884,780 x (1.0 - .17) ÷ 365] = 82 days
Gross Margin Return on Receivables (%)	{[(3) Gross Profit ÷ (1) Net Sales] x 100} x (365 ÷ Average Collection Period)	Indicator of how much gross margin dollars are being generated on your accounts receivables.	[(1,492,481 ÷ 5,884,780) x 100] x [365 ÷ 82] = 112.9%
OPERATING EXPENSE CONTROL			
Total Operating Expense to Net Sales (%)	(10) Total Operating Expenses ÷ (1) Net Sales	Conventional measure used for controlling total operating costs.	$1,323,621 ÷ 5,884,780 = 22.5%
Total Operating Expense to Gross Margin (%)	(10) Total Operating Expense ÷ (3) Gross Profit	A somewhat more specific measure than the one above.	$1,323,621 ÷ 1,492,481 = 88.7%
Non-People Expense to Net Sales (%)	[(10) Total Operating Expense - [(29) Payroll + (30) Fringes]} ÷ (1) Net Sales	A measure for controlling all operating costs except personnel costs.	[$1,323,621 - (604,313 + 234,303)] ÷ 5,884,780 = 8.2%
Non-People Expense to Gross Margin (%)	{(10) Total Operating Expense - [(29) Payroll + (30) Fringes]} ÷ (3) Gross Profit	Same as above but somewhat finer.	[$1,323,621 - (604,313 + 234,303)] ÷ 1,492,481 = 32.5%
INTEREST EXPENSE			
Interest Expense to Net Sales (%)	(46) Interest Expense ÷ (1) Net Sales	An indicator of how much debt financing is costing the firm relative to sales.	$13,092 ÷ 5,884,780 = 0.2%
Times Interest Earned (x)	[(14) Net Profit Before Taxes + (46) Interest] ÷ (46) Interest	Indicates the ease in which your company can pay interest costs out of earnings.	[$114,136 + 13,092] ÷ 13,092 = 9.7x

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